

THE BLATTARIÆ OF AUSTRALIA AND POLYNESIA.

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[Read March 7, 1893.]

INTRODUCTION.

The BLATTARIÆ form a section of the heterogeneous order of the Orthoptera, and are now usually placed as the second in the series, the Forficulariæ or Earwigs preceding them. They have been so designated by Latreille, Serville, and Fisher, while Burmeister calls them BLATTINA, Stephen terms them BLATTIDÆ, and Brunner van Wattenwyl in his "Prodromus of European Orthoptera" modifies the term to BLATTODEA. Popularly they are called *Cockroaches* or *Black Beetles* by the English; *Schaben* by the Germans, and *Kakerlaks* by the French. Palæontologically the cockroaches appertain to the most ancient insects known, impressions of wings, &c., having been found in the Carboniferous (*i.e.*, true coal-bearing) strata of Europe and America. At the present time they are distributed over the whole earth, except the polar and alpine regions, and embrace numerous species arranged by Brunner into eleven families, to which I have added another.

The affinities and differences of the suborders of Orthoptera, as summarised by modern authors, are best indicated by the following synopsis:—

1. Organs of flight in normal position during the larval stage. Legs, inclusive of posterior femora, fitted for running, rarely for burrowing). Ovipositor concealed by a subgenital lamina. All voiceless.
2. Wings, when present, folded transversely in the middle of the anterior margin. Tarsi with three joints, arolia none. Cerci corneous, resembling and acting as forceps. *Forficulariæ.*
- 2.2. Wings, when present, folded longitudinally from the base. Tarsi five-jointed, with arolia. Cerci soft, more or less distinctly jointed.
3. Body depressed. Head retracted. Pronotum shield-like; transverse. Legs compressed. Cerci articulate. Insects fitted for swift-running, rarely for burrowing. *Blattariæ.*

- 3.3. Body elongated. Head free. Pronotum elongate. Legs slender, terete. Cerci articulate or the joints scarcely distinct. Insect fitted for walking.
4. Forelegs raptorial. Cerci distinctly articulate. *Mantodea.*
- 4.4. Forelegs not raptorial, simple, mostly very much elongated. *Phasmodea.*
- 1.1. Organs of flight inverted during the larval state. Hind-femora fitted for leaping. Ovipositor free, corneous. Organs of voice and sound-production present. *Acridiodea, Locustodea, Gryllodea.*

GENERAL CHARACTERISTICS.

Form, Size, Colour, &c.—The outline of the body throughout the whole section of the Blattariæ is very uniform, varying only from subhemispherical in *Cassidodes* to compressed elongate-oval, the intermediate grades being the most common. In size the adults vary from less than a quarter of an inch to about three inches in length; but the extreme sizes are comparatively rare. The colours are usually sombre, mostly some shade of brown, reddish, or yellowish, beside black; bluish, greenish, and metallic tints, however, occur in the genus *Polyzosteria*. The markings, when defined, are fairly constant as well as the general ground-colour; the eyes of the living insects are perhaps invariably black, and the variations recorded by Walker are in the case of Australian species scarcely anything else than the discolouration produced by drying, putrescence, &c., or the effects of alcohol and other chemicals. In the larval state the general colour is often much paler and the markings much more definite and decided than with the adults, although exhibiting the same general type.

Habits, Food, &c.—The habits of most species are nocturnal or crepuscular, the remainder—sometimes all the species of large genera—are entirely diurnal, notably of *Apolyta* and *Polyzosteria* as limited by me. The majority appears to be wholly carnivorous, their food consisting of other insects, eggs, larvæ, &c., or their dead bodies, even of their own kind; the comparative immunity of our native shrubs, &c., from attack of injurious insects is probably owing to a considerable extent to the silent hunting of the formerly very numerous cockroaches, which, like the ants, are not preyed upon by birds, on account of their disagreeable scent. A smaller part, however, are decidedly less particular in their diet, almost omnivorous, such as *Periplaneta orientalis* and *P. americana*. It is this minority which has brought discredit upon the group, by making human habitations their almost ex-

clusive residence, and attacking man's stores. But even these limit themselves in vegetable diet to ripe or prepared fruits, or other vegetable food substances suitably altered by cooking or decay, and I have not met with a single case of living plants having been attacked by them. The greater proportion of species is therefore beneficial to man and Nature generally, notwithstanding their repulsive exterior.

As far as known hitherto the Blattariæ choose as hiding-places during periods of inactivity any dark, secluded spaces, under logs of wood, stones, bark, vegetable debris, or anything offering shelter and protection, and without constructing themselves any burrows or individual homes. The individuals of the genera *Epilampra* and *Oniscosoma*, especially the females, however, are known to bury themselves in loose soil or dust, and their fore tibiæ accordingly exhibit a somewhat modified structure, enabling them to displace the loose particles, being incrasated, and the spines long and stout, though still unmistakably on the normal type. None appear to have been known of truly burrowing habits, like the crickets, until the discovery of a large wingless species near Broken Hill, and subsequently at Renmark, the fore tibiæ of which are sufficiently modified to enable it to burrow in ordinary soil, *e.g.*, red clay. Differing in this direction so much, and correspondingly in other details, I have formed a new family—Geoscapheusidæ—for this singular species.

Owing to their voracity and cannibalistic tendencies, the carnivorous species lead more or less solitary lives, and one meets rarely several together in close proximity; they are not at any time very numerous, on account of the stronger devouring the weaker in lack of other prey, and thus their number is strictly limited by the food supply. It is only such that have developed tastes for amylaceous fare in preference to animal diet which trouble man by invading his habitations in large numbers, and living gregariously and peacefully together, as long as absolute want of food does not force them to extremes, when they do not hesitate to eat each other, nor will they leave the body of a dead comrade undevoured if discovered before quite dry. On the whole cockroaches belong to Nature's best scavengers in wood, field, and garden.

Distribution.—Some of the omnivorous kinds are almost cosmopolitan, being only restricted by the extreme limits of temperature bearable for them. Many species are, however, limited to more or less restricted areas, and disappear with the flora of the regions they inhabit, notably those that are destitute of the power of flight in one or both sexes. Being very shy, swift of motion, and usually endowed with repulsive smell, their habits are difficult to study, and therefore little is known of the vast

majority. It is to be hoped that the present attempt to define and describe our known species may induce others to take up this promising subject.

In the present state of our knowledge, it is impossible to state even an approximate number in respect of defined species. One of the causes is that several authors have been simultaneously and independently at work, with the result that the same species has received different names, which can only be rectified by a thorough revision in Europe by some one with means and leisure to compare the types.

Brunner van Wattenwyl (Nouveau Systeme des Blattaires, 1865), the highest authority on the suborder, describes 378 species in 56 genera, distributed all over the world, many of which occur in two or more continents, but only two species are wholly cosmopolitan, viz., *Periplaneta orientalis* and *P. americana*. The following table will give a general idea of their distribution as known at the date of Brunner's work :—

	Total of Species.	Endemic Species.	Species com- mon to two or more regions.
Europe	18	14	4
Asia and Malay Archipelago	89	62	17
Africa, Madagascar, &c. ...	72	59	13
North America, Mexico, W.			
India	52	41	11
South and Central America	141	129	12
Australia, New Zealand, and			
Polynesia	48	38	10
Habitat unknown	7	—	—

The number of endemic species is 343, and 35 are of wide distribution out of the total of 378.

In Walker's British Museum Catalogue (1868) and the Supplement (1869) a much larger number is recorded, but owing to duplication of names, and absence of appreciation of some of the most essential characters, great confusion has resulted, and many of his species are quite uncertain. Since his time some additions have been made by Saussure, Stål, and Bormans, comprising a moderate number of Australian forms (chiefly from the eastern colonies and islands). Of the later publications of Saussure, recorded by Walker, or of those of the two other writers I have not been able to obtain sight, but expect to get copies in the course of the year, when possible corrections will be duly noted.

In the present paper 193 species are recorded, being comprised in 33 genera and 10 families, of which 1 family, 9 genera, and 55 species are new. The Periplanetidae are the most numerous with

94 species (or nearly one-half) in 8 genera. The total number of species referred to, unaccompanied by descriptions, is 33, three of which belong to monotypic genera. As only two or three of this species inhabit parts of Australia from which species are described as new by me, scarcely any clashing of my work with that of the older authors is anticipated.

The Characteristic Organs.—The various external organs of the Blattariæ are constructed on so uniform a plan that it appears almost impossible to mistake a cockroach for any other kind of insect, even upon a most cursory inspection; the systematist has therefore to resort frequently to minute variations in order to insure ready recognition of his species. Fortunately these small differences appear to be remarkably constant, and are therefore the more valuable.

The Head is always more or less retracted, the face flat, the vertex prominent, and the mouth directed rearward, the whole being either entirely concealed under the forepart of the thorax, or only a small portion exposed. The eyes are large, oval or kidney-shaped, and placed more or less obliquely; during life they appear to be always black. The *ocelli* are mostly only indicated by two pale coloured spots in front, are sometimes wholly absent, and in the *Heterogamidæ* alone are they developed to any extent. Their form, colour, &c., afford sometimes good subsidiary, specific, or varietal distinctions. Such are likewise offered by the face (*frons*), labrum, clypeus and palpi, occasionally notable in their colour markings, although their structure varies little or irregularly. The *antennæ* are always slender, and mostly filiform or setaceous (sometimes sub-moniliform or ciliate), varying in length from less than half that of the body to more than doubly exceeding it. As in other Orthoptera, the mouth parts are not employable for general classification on account of their great uniformity of structure, and are only occasionally made use of.

The Organs of Flight consist of an anterior pair of more or less leathery or horny elytra, and a posterior pair of much more delicate membranous wings. One or both pairs may be rudimentary, lobiform or entirely absent, and either perfect in both sexes, or only in the male. The absence or more or less rudimentary state of them are especially prominent in the Australian insects, and favours the localisation and multiplicity of species. They supply most important distinctions.

The Elytra, when present, exhibit a system of veins analogous to that of the other genuine Orthoptera. The *costal* or *mediastinal* vein is very short, usually terminating within the basal-third of length of the fore margin (costa), and is always branchless; in some genera it shows a more or less tumid keel beneath. The *radial* or *scapulary* vein is free from the base, and emits

branches only towards the costa, except in *Ectobia*, where such are also emitted on the opposite side. The *inframedial* or *ulnary* vein is only separated by a very narrow space at the base from the preceding, which gradually widens during its subsequent course; it mostly separates into an anterior and posterior branch from the start, both branching out towards the border, the interspace being more or less crossed by transverse veinlets. The *dividing* or *anal* vein is the last; it proceeds in a more or less pronounced, generically distinct, curve (often very short), and is unbranched. By it the anal area is bounded, which contains a varying number of straight or reticulating veinlets. The left elytron usually covers the right one, but in rare cases have I observed the reverse. These organs afford most important distinctive characters by the arrangement, curvature, &c., of the veins for the separation of families and genera, and it is the neglect of these which renders the descriptions by Walker and some others so unsatisfactory.

The Wings present homonymous veins, but present a different arrangement in respect of the areas bounded by them, the *anal* vein being straight, dividing the wing nearly in equal halves, and terminating in an angular emargination of the exterior margin, or in some genera cut off by a *triangular area*, which folds fan-like, and in some cases is more or less largely produced beyond the ordinary outline of the border. The *costal* vein turns usually midway towards the fore margin, emitting some straight branches into the same. The *scapulary* vein emits oblique branchlets into the apical half of the costa, and a stouter branch from about the middle towards the apex. In some genera, as *Ectobia* and *Phyllodromia*, it is also connected by short transverse vein with a spurious one proceeding from the border towards the middle without a terminal connection. The *ulnary* (*inframedial*) vein is mostly separated by a narrow hyaline space from the foregoing, and usually emits more or less numerous branchlets rearward, but in some cases, as in *Ectobia* and *Phyllodromia*, remains simple. The *anal* area contains a number of nearly straight radiating veinlets, more or less connected by transverse reticulations. Important distinctions are often supplied by the wings.

The venation of rudimentary or abbreviated organs of flight is mostly quite distinct in both pairs, and the border is either entire (*Periplaneta*) or jagged (*Punesthia australis*). When lobiform, the bases only of the principal veins are more or less discernible. The presence of either of these forms, when free, denotes adults; while in the advanced larval stage, and preceding the final moult, both pairs (or one) are made manifest by elongation of the hind-angles of the meso- and meta-notum, and their being more or less plainly discernible, although covered over completely by a thin

contiguous membrane. Adults, when quite wingless, are recognised by the complete development of the genital appendages and the much greater rigidity of their integument.

The *sternal segments* of the thorax are almost concealed by the broad, flat *coxæ*, which are either concolorous, striped darker and paler, or bordered by pale exterior margins.

The Legs are strong, and all fitted for swift running, except in the family *Geoscapheusidae*, in which the anterior pair is conspicuously modified for burrowing. The *trochanters* are usually large, and the apex, in some cases, produced as a short spine. The *femora* are much compressed, and either all simple or hairy, or provided with two rows of longer or shorter spines on the inner side, or, in a few instances (*Ataxigamia*, *Gynopeltis*), the fore femora alone are spined. The character of being thus armed or not is used to divide the Blattariæ into two main divisions. The *tibiæ* are either slender, incrassated, or, in *Geoscapheus*, dilated and flattened anteriorly, and are all armed with four rows of spines, which are more or less developed, but afford no reliable distinctions. The *tarsi* consist of five joints (one sometimes obsolete), are slender and compressed; each joint has usually a pulvillus or pad beneath, while in some cases an arolium between the two claws is present. The first joint is always the longest, sometimes very long, and its comparative length distinguishes some families or genera.

The Abdomen consists of nine segments and the anal appendages. The first segment is more or less obliterated and amalgamated with the metanotum, especially in the winged species, while in the wingless it appears dorsally as a very narrow extended arc of a circle, projecting from beneath the hindmargin of the metanotum, and does not attain the lateral margin. The following six segments are well developed, their texture, colouring, &c., and the form of their hind angles afford some useful specific distinctions. The eighth segment is usually entirely covered by the preceding one, and only denoted laterally by its produced posterior angles. The ninth is still more reduced, and bears the articulated *cerci* and the supra-anal lamina between them. The size, &c., of the former supplies important characters for the distinction of families, genera and species, while the latter is still more important in this respect. On the *ventral side* the males exhibit usually 7—8 zonal segments, the female six; to the last are appended the subgenital lamina with the styles of the males, and the divided or united valvules of the females; the genitalia proper of both sexes are quite concealed by these organs, which, in most instances, are very important for classification or identification.

The ova are not deposited singly, but collectively in an egg-

case, which remains attached to the female by a membrane connected with the subgenital valvules or plate until containing the normal number of ova fixed for each species. Although of similar type, specific or generic differences appear to be developed, but our knowledge in this direction is still very meagre. The cases are very elastic, and consist of a double row of cells, each with one egg; they are marked laterally by slight furrows, and the keel above by notches, crenulations, or teeth; the cells open valvularly to permit the escape of the young when hatched, but close again and appear intact.

SYNOPSIS OF FAMILIES.

1. Femora spined.
2. Abdomen of female with last segment large, flat; subgenital lamina obsolete.

3. Supra-anal lamina of both sexes very narrow, transverse. Wings, when developed, with an apical triangular area.

I. ECTOBIDÆ.

3.3. Supra anal lamina more or less produced, triangular, incised, or lobed. Wings without apical triangular area.

II. PHYLLODROMIDÆ.

4.4. Supra-anal lamina of male more or less quadrate, of female incised, lobes rotundate or broadly rounded and entire. Cerci scarcely as long as lamina, or very little exceeding the same.

5. Body flat, or moderately convex. Males winged, females wingless. Fore legs gressorial, fore tibiæ clavate, spines in double series. Supra-anal lamina of male more or less quadrate, of female incised, lobes rotundate, or rarely entire. Cerci long, articulate.

III. EPIPLANETIDÆ.

5.5. Body thick, broad. Both sexes wingless. Fore legs fossorial, fore tibiæ flat, spines palmate, in single series. Supra-anal lamina of both sexes broadly rotundate, entire. Cerci very short, joints indistinct.

IV. GEOSCAPHEUSIDÆ, fam. nov.

2.2. Abdomen of female with free valvules, or these rarely united by a suture.

V. PERIPLANETIDÆ.

a. Cerci as long as supra-anal lamina, or scarcely longer. Elytra none, or lobiform.

POLYZOSTERINÆ.

b. Cerci much longer than lamina. Elytra perfect or rudimentary, rarely lobiform or absent.

PERIPLANETINÆ.

1.1. Femora not spined, or rarely only the anterior ones.

2. Claws with arolia (excepting the females of Heterogamidæ).

3. Forepart of wings rounded, or with plicate apical triangular area.

VI. CHORISONEURIDÆ.

3.3. Forepart of wings rounded, without triangular apical area.

4. Wings with anal area flabellate. Pronotum glabrous (except in some species of *Derocalymma* and *Perisphaeria*.)

5. Abdomen of female with supra-anal lamina quadrate, incised, or entire; hind angles of abdominal segments produced.

VII. PANCHLORIDÆ.

5.5. Abdomen of female with supra-anal lamina rotundate, dorsal segments truncate, hind angles not produced.

VIII. PERISPHAERIDÆ.

4.4. Wings with anal area not plicate. Pronotum ciliate.

5. Supra-anal lamina of female rotundate. Extra Australian.
(CHORYDIDÆ).

5.5. Supra-anal lamina of female quadrate, incised.

IX. HETEROGAMIDÆ.

2.2. Claws without arolia (except the females of *Heterogamidae*).

3. Supra-anal lamina of both sexes quadrate, incised. Elytra flat, much exceeding the abdomen (Extra Australian).

(BLABERIDÆ).

3.3. Supra-anal lamina of both sexes transverse, entire, rotundate. Elytral abbreviated or constricted in the middle, and exceeding the abdomen.

X. PANESTHIDÆ.

SYSTEMATIC DESCRIPTIONS.

The following works were principally consulted and availed of to a considerable extent:—

C. Brunner van Wattenwyl, *Système des Blattaires*, 1865; Burmeister, *Handbuch der Entomology*, Vol. II., 1838; Walker, *British Museum Catalogue of Blattariæ*, 1868; and *Supplement*, 1869. Also the "Zoological Record," and several minor publications.

I. ECTOBIDÆ.

Body of male elongate, of female dilated. Penultimate joint of the palpi not exceeding the last by more than one half. Wings horny, or leathery, or lobelike, and leaving the scutellum uncovered. Radial vein united at the base with the ulnary, and either emitting branches to the sutural margin, or the veins divide, and if not themselves forked, emit forked branches towards the apex. Wings, when present, with the anal (dividing) vein dichotomous at the apex including a pellucid triangular membrane readily folded between the branches, radiating veins united by a single transverse veinlet. Legs slender, femora spined. Supra-anal lamina of male very narrow, transverse. Subgenital lamina of male oblong triangular, styles rarely provided. Last ventral segment of female ample, or produced, emarginate.

ECTOBIA, Westwood.

Phyllodromia, Serv.; *Phyllodromica*, Fieber; *Blatta*, &c. (*Br.*, Syst., pl., fig. 1).

Wings perfectly explicate, apical triangular area small. Femora moderately spinose. Supra-anal lamina of both sexes transverse, very narrow. Male without styles. Female with last ventral segments large.

The genus comprises only small-sized insects. The costal vein is short, straight, and cuts off a broad area; the radial and ulnar veins are united (or rather the latter is obsolete), and emit branches on both sides, which is not the case in any other family. The anal vein curves convexly towards the hindmargin, and near it turns outward and meets the margin obliquely. The anal area is comparatively broad, and it and the radial area are provided with transverse veinlets.

ECTOPIA LIVIDA (*Fabr.*), *Brunner*, *Syst.*, 59.

"Body pale. Head brown, vertex ferruginous. Pronotum large, margin of disk slightly reddish. Elytra flat, broad, as long as the abdomen or longer, with brownish dots along the radial vein, sometimes obsolete. Legs pale brownish. Abdomen black, margins and apex pale.

		Male.	Female.
Length of body ...	...	9.5 mm.	8 mm.
Length of elytra ...	10	"	6.5 "
Length of pronotum ...	2.5	"	2.8 "
Width of pronotum ...	3.5	"	3.8 "

Habitat.—Europe, Africa (*Brunner*), Australia (*Walker*)."

ECTOPIA MARCIDA (*Erichson*), *Br.*, *Syst.*, 61.

"Body pale. Disk of pronotum clouded with testaceous. Elytra sparingly veined, interstices brownish. Abdomen piceous, margins pale. Neither measure nor sex recorded.

Habitat.—Tasmania."

ECTOPIA LUCIDA, *Brunner*, *Syst.*, 62.

"Body chesnut-coloured, shining. Pronotum with lateral margins and median streak scarcely distinct. Elytra with costal area sometimes testaceous, acuminate; radial and ulnar veins separated at the base, emitting parallel branches towards the apex, none to sutural margin.

				Male.
Length of body ...	...	...	...	7 mm.
Length of elytra ...	...	...	...	8 "
Length of pronotum ...	...	...	...	1.8 "
Width of pronotum ...	...	...	...	2.3 "

Habitat.—Australia."

ECTOBIA APICIFERA, *Walker* (Blatta), Br. Mus. Cat., 110.

Greyish-white and brown. Head very broad, vertex forming a transverse ridge. Face pale, except a brown semi-elliptical spot between the antennæ and eyes with white margins and median line. Antennæ as long as the body, hairy, pale-greyish. Pronotum wider than long, rounded laterally and in front, straight behind, anterior and lateral margin broadly whitish, former narrowly bordered with black above the eyes, disk brown, with a fine, pale median line and a deep triangular sinus on each side anteriorly. Elytra elongate oval, deep brown, costal and anal margins broadly pale, showing two broad, brown stripes when at rest. Wings pale. Abdomen pale yellowish above, segments bordered dark behind. Underneath pectus and legs pale, abdomen dark with pale margin, last segment and apex partly blackish.

	Male.			
Length of body	8 mm.
Length of elytra	6.5 "
Length of pronotum	1.8 "
Width of pronotum	2.6 "

Habitat.—Mount Lofty Range, South Australia. S. A. Museum; one adult male.

An imperfect specimen, referred to this species, has the blackish stripes of the elytra continued over the pronotum, and the black spot of the face more indistinct, but was taken at another place and time. The species, although here recorded under Walker's name, is re-described from the specimens.

II. PHYLLODROMIDÆ.

Wings, when present, without apical triangular area. Elytra and wings perfect or rudimentary; radial vein without posterior branches or only a single branch emitted towards the apex; branches of ulnar vein oblique; anal vein similar to that of preceding family. Abdomen of female with last segment large, without subgenital lamina. Supra-anal lamina of both sexes more or less produced, triangular, incised or lobed. Cerci more than twice the length of the lamina.

LOBOPTERA, *Brunner*, Syst. 79, fig. 5.

Body oblong ovate. Pronotum oblong, or transverse. Elytra abbreviated or lobiform, wings absent. Femora thickly spined, compressed, dilated, also the tibiæ. Abdomen flat in both sexes, sometimes wider in the female than the male. Supra-anal lamina triangularly produced, emarginate in the female. Subgenital lamina of male triangular, obtuse, without styles, or very minute and slender.

LOBOPTERA TRIVITTATA (*Erichson*).

Brunner, Syst., 82; Arch. f. Nat. viii., 248.

"Yellow. Body with three black stripes, brownish posteriorly, the middle one obliterated anteriorly.

Length of body (sex ?) ... 9-12 mm.

Habitat.—Tasmania."

LOBOPTERA HALMATURINA, *sp. nov.*

Pale yellowish. Male oblong, female dilated behind. Two broad piceous stripes from the eyes to the middle of the cerci or rather beyond. Face with a piceous stripe widest between the antennæ, and there nearly severed by a pale transverse line or triangular spot. Pronotum with the pale space in the middle much wider behind and marked by a black spot resembling the conventional "Broad Arrow," and repeated on the disk of the mesonotum, but extending quite across it. Metanotum with a median line much wider behind, sometimes reduced to a triangular dot on the hindmargin and two dots or short transverse bar, also a short, very fine line on either side. Abdomen with a more or less defined median line or stripe of variable form (almost obsolete in some female specimens). Underneath the pectus and coxæ are pale, the latter with two black dots; the legs pale, tibiæ with black dots along the exterior margin and black apices; abdomen piceous to black ventrally.

		Male.	Female.
Length of body	...	7.5 mm.	8 mm.
Length of pronotum	...	2.3 "	2.5 "
Width of pronotum	...	2.9 "	3.3 "

Habitat.—Near head of Western Cove, Kangaroo Island, captured by myself on *Callitris verrucosa* (Native Cypress-Pine). Six specimens (S.A. Museum).

LOBOPTERA DUODECIMSIGNATA, *sp. nov.*

Flat, fusiform. Brownish or reddish-yellow, dusky. Margins of pronotum, elytra, and meta-notum pale, hyaline; disk pale brownish. Abdomen with posterior segments bordered broadly brownish, lateral margin with six short blackish bars on each side, legs and cerci pale yellowish, posterior part of abdomen darker. Egg-case cylindrical, whitish, with a very fine dark ridge, scarcely serrate.

			Female.
Length of body	...	...	10 mm.
Length of pronotum	...	...	2.3 "
Width of pronotum	...	...	4 "

Habitat.—Vicinity of Adelaide, South Australia. Two females.

(S.A. Museum). Under bark of Eucalypts in scrub-lands. The barren female was captured in April; the other, with egg-case undetached, in July.

LOBOPTERA CIRCUMCINCTA, *sp. nov.*

Pale dusky-yellowish, banded with dark-brown, and pale lateral margins. Head blackish-brown, ocelliform spots, and mouth parts pale; also the antennæ. Pronotum with disk and hindmargin brown, enclosing a pale subrhombic spot; foremargin dark-brown, sometimes obliterated. Elytra lobiform, much exceeding the meso-notum; disk brown. Abdomen with anterior segments pale, their hindmargins dark; posterior segments dark, except the last, which has a pale hindmargin. Supra-anal lamina of male very short, rounded; of female acutely triangular, compressed. Cerci long, terete, hirsute. Underside pale dusky-yellowish, legs whitish.

		Male.	Female.
Length of body	...	8.5 mm.	9 mm.
Length of pronotum	...	2 "	2 "
Width of pronotum	...	3.5 "	4 "

Habitat.—Kangaroo Island (*Tepper*, April, 1884); Riverton (May, 1887); Mount Bryan East (September, 1887). Two males, two females (S.A. Museum).

The males only appear to possess lobiform elytra, the females to be wholly wingless.

LOBOPTERA UNDULIVITTA, *Walk.* (Brit. Mus. Cat., 144).

"Testaceous, fusiform, smooth, shining. Head with two black stripes dilated towards the vertex. Antennæ piceous, base testaceous. Pronotum with two undulating black stripes not extending to foremargin. (Elytra?) Abdomen with two black stripes, apical part black, or almost wholly black. Supra-anal lamina of male bilobed, emarginate, sides deflexed. Cerci long, flat, lanceolate, tawny. Styles distinct.

Length of body (male and female) ... 15 mm.

Habitat.—New Zealand."

This and the following species have been removed from the genera under which they were placed by Walker, on account of their general characters, as apparent by his descriptions, which agree much better with *Loboptera* than any other, notably the striped pronotum and rudimentary wings.

LOBOPTERA MARGINIFERA, *Walk.* (ibid).

"Yellow, fusiform, smooth, shining. Head with a piceous band on the vertex. Pronotum pale, hyaline, yellow, bordered in the disk by two irregular black stripes, and externally by two

yellow lines. Meso- and meta-notum, also abdomen, bordered pale yellow, with two black stripes laterally. Elytra rudimentary, pale yellow, hyaline. Abdomen piceous beneath, angles acute, hyaline. Supra-anal lamina acutely angular laterally.

Length of body (male and female) ... 18 mm.

Habitat.—King George's Sound, West Australia."

LOBOPTERA PLATYSOMA, *Walk.* (ibid, 111).

"Testaceous, elliptical. Head broad, exceeding the pronotum. Antennæ stout, setulose. Pronotum rounded in front, hind-margin straight, sides pellucid. Elytra much shorter than the body, costa much rounded; transverse veinlets few. Wings pellucid, rudimentary.

Var. B. Abdomen with a black patch on each side near the base. Cerci lanceolate, rather long and slender.

Length of body ...	...	...	...	Male.
Length of elytra...	...	...	...	7 mm.
				2.5 "

Habitat.—West Australia."

TEMNOPTERYX, *Brunner* (Syst. 83, fig. 6).

"Body oblong. Antennæ longer than the body. Pronotum flat, semicircular, leaving the head free. Elytra half the length of the body, truncate, touching in a straight line; scutellum largely exposed, veins not very distinct. Wings as long as the elytra. Tibiæ very spiny, very broad behind, especially with the males. Supra-anal lamina of male transverse, rounded; of female triangular. Cerci eight-jointed."

TEMNOPTERYX OBSCURA, *Saussure*.

Mel. Orth. in Memoirs Soc. Phys. de Genève, xx., part II., 1870.

Habitat.—India, Samoa. Description not seen.

PARATEMNOPTERYX, *Saussure* (loc. cit.).

Resembles *Temnopteryx*, but the tarsi are not provided with plantuli (arolia).

PARATEMNOPTERYX AUSTRALIS, *Sauss.* (loc. cit.)

Habitat.—Australia. (Zool. Record, Vol. VI., 459, 1870.)

TEMNELYTRA, *gen. nov.* (=truncated elytra).

Body oblong. Antennæ as long as the body. Pronotum flat, semiorbicular. Head free. Elytra subcorneous, semihyaline, extending slightly beyond the metanotum; veins undeveloped, except the main ones, unbranched. Wings none or scale-like.

Femora shortly spined, tibiae slightly incrassated. Abdomen very flat, nearly alike in both sexes, dorsal segments 8—9. Supra-anal lamina large, almost as long as wide; of the male subtruncate, broadly emarginate, angles rounded; of the female much narrower, subtriangular, arched, triangularly emarginate. Subgenital lamina with long filiform styles. Cerci ten-jointed.

The genus appears to form an intermediate link between *Aphlebia* and *Temnopteryx*, the structure of the elytra appertaining to the former and the general form of body, legs, and genital appendages to the latter. The following synopsis denotes the affinities of this to *Temnopteryx* and the succeeding genus:—

Elytra abbreviated. Wings rudimentary or none.

1. Veins more or less distinct and complete.

2. Elytra truncate, subquadrangular. Veins complete, simple, more or less parallel.

TEMNOPTERYX, *Br.*

2.2. Elytra ovate, rounded. Veins incomplete, sinuate.

BALTA, *gen. nov.*

1.1. Veins almost obsolete, or very indistinct. Elytra truncate, subquadrangular, transparent.

TEMNELYTRA, *gen. nov.*

TEMNELYTRA HARPURI, *sp. nov.*

Pale brownish-yellow. Integument of pro- and meso-notum almost transparent. Pronotum rounded in front, straight behind, angles rounded, margin broad, whitish, hyaline, disk brownish, showing outline of body beneath, and marked by a slender brownish line, the hindmargin overlapping the mesonotum considerably.

Elytra of male quadrilateral, truncate, exceeding the metanotum, with numerous impressed dots, with radial and anal vein distinct, latter terminating apparently in the posterior apical angle, margins pale yellowish, disk pale brownish; female wingless. Abdomen of both sexes pale yellowish, above with a paler margin, an interrupted piceous stripe, including black dots; of male beneath black towards the margin and apex, paler elsewhere; of female quite pale with two dark marginal stripes.

	Male.	Female.	Larva.
Length of body ...	15–17 mm.	15 mm.	10 mm.
Length of elytra ...	4.5 "	— "	— "
Length of pronotum...	5 "	4.5 "	2.7 "
Width of pronotum ...	6 "	5.5 "	4 "

Habitat.—Cygnet River, and Karatta, Kangaroo Island.

Two males, one female, and one larva (S.A. Museum).

The insects are diurnal in habit, and were captured on *Acacia*

bushes in March in November respectively, and were very swift in their movements. The half-grown larva is almost concolorous. The specific name is given as a slight token of gratitude to and in honour of the late manager of the Karatta Station, Mr. W. Harpur, whose ready and disinterested help and hospitality alone enabled me to examine the south-western part of the island (otherwise uninhabited) for several weeks.

BALTA, gen. nov. (Anagram).

Body oblong. Antennæ as long or longer than the body. Pronotum flat, semicircular, wider than long, and not covering the head. Scutellum free. Elytra abbreviated, extending to the fifth or sixth segment of the abdomen, costal margin very much rounded, hindmargin nearly straight, apex obtuse; costal vein indistinct or obsolete; radial vein distinct, sinuous, with five branches (one or two forked); ulnar vein with two branches; remainder wholly absent. Wings very rudimentary or none. Tibiæ compressed, not dilated, with long spines. Supra-anal lamina of male transverse, subtriangular, emarginate and deeply incised, lobes rounded; of female much reduced. Cerci long, ten-jointed.

BALTA EPILAMPROIDES, sp. nov.

Size small. Obscurely pale yellowish. Pronotum smooth, lateral margin broad, pellucid; disk with medium line indistinct, a short, oblique streak on each side, and several minute brownish dots. Elytra with the veins and reticulations whitish, interspaces brown. Abdomen of female with six undefined brown stripes, hindmargin of several segments with black dots (*Epilampra*-like), male paler than female, and scarcely marked. Underside pale, lateral margin of abdomen with blackish spots, or wholly dark. Cerci banded with piceous.

	Male.	Female.
Length of body ...	8 mm.	8·5–9 mm.
Length of elytra...	3·3 “	3·3–3·5 “
Length of pronotum ...	2·3 “	2·3 “
Width of pronotum ...	3·3 “	3·5 “

Habitat.—Kangaroo Island (1886), Murray Scrub (1887). One male, three females (S. A. Museum).

The insect are diurnal, and were captured by me in November on *Acacia* shrubs.

BALTA DISCALIS, Walker, sp., Brit. Mus. Cat., 111.

“Black. Head and pronotum thinly punctured. Base of antennæ, a dot between them, and a patch on each side, extending to the border, yellow. Pronotum with anterior and lateral margin rounded, yellow, hindmargin straight. Elytra tawny,

not exceeding half the length of the abdomen. Underside tawny. Abdomen with a yellow stripe laterally above and below.

Length of body (female) 7–8 mm.

Habitat.—Western Australia.”

PHYLLODROMIA, *Serville*.

Br., Syst., 88, figs. 7 and 8 ; *Blatta*, auctores.

Body elongate. Elytra corneous, incumbent, concealing the scutellum ; anal vein long, not much curved, terminating about the middle of the hindmargin ; radial vein emitting no branches to the hindmargin, ulnar vein separate at the base, the branches extending longitudinally towards the apex. Wings perfect, ulnar vein undivided, or emitting a few branches to the apex. Abdomen of male lanceolate, with nine dorsal and eight ventral segments ; of female with nine dorsal and six ventral. Supra-anal lamina of male triangular, or subsemicircular ; of female triangular, obtuse, emarginate. Cerci long, 12-jointed. Sub-genital lamina triangular, obtuse, styles none or rudimentary.

This is another of the genera into which the original—now altogether abolished—genus *Blatta* has been distributed, and is of wide extent. A large number of species are recorded by Brunner, Saussure, Walker, &c., but not a single one represented in the collection of the South Australian Museum at present. The species of the last-named author are doubtful, and cannot be correctly placed, owing to his defective descriptions, notwithstanding their apparent fulness, and must remain uncertain until determined by comparison with his types, and redescribed.

PHYLLODROMIA GERMANICA, *Linné*.

“Brownish testaceous. Head very prominent ; face brownish, vertex pale. Pronotum of male oblong, of female transverse, with two brown longitudinal stripes (slightly curved), the space between them reddish testaceous, and distinct from the margin. Elytra concolorous. Wings with ulnar and anal vein entire.

	Male.	Female.
Length of body...	13 mm.	11 mm.
Length of elytra	11·5 “	11 “
Length of pronotum	3 “	3 “
Width of pronotum	3·5 “	4·5 “ ”

—*Br.*, Syst., 90.

Habitat.—All continents ; its occurrence in Australia, however, requires confirmation.

The species has been described as *Blatta Germanica* by most authors, but also as *B. Asiatica*, Pallas ; *Ectobius*, Stephen ; *Ectobia*, Westwood ; *Phyllodromica*, Fieber.

PHYLLODROMIA AUSTRALÆ, *Br.* (Syst., 95).

"Testaceous. Head testaceous, with a transverse line; vertex and antennæ black. Pronotum with yellowish fore- and hind-margins; disk brownish, with two dark stripes contiguous in front, space between them of equal width throughout. Wings with the ulnar vein with few branches, all emitted towards the apex. Elytra ferruginous testaceous. Abdomen brownish above, underside streaked brown laterally. Legs testaceous.

				Male.
Length of body	...	...	...	12 mm.
Length of elytra	...	...	...	13 "
Length of pronotum	...	...	...	3.2 "
Width of pronotum	...	...	...	4.2 "

Habitat.—New South Wales."

PHYLLODROMIA SPURIA, *Brunner* (Syst., 96).

"Brownish ferruginous. Antennæ brownish. Pronotum transverse, truncate in front and behind, with two indistinctly bordered stripes continued along the elytra. Margins of pronotum and elytra broadly hyaline. Legs testaceous. Abdomen border testaceous, and with brown lateral streaks.

				Male.
Length of body	...	...	...	9 mm.
Length of elytra	...	...	...	8 "
Length of pronotum	...	...	...	2.2 "
Width of pronotum	...	...	...	4 "

Habitat.—Fiji Islands."

PHYLLODROMIA FEMORATA, *Brunner* (ibid, 101).

"Rusty yellow. Antennæ blackish at the base, otherwise rusty brown, much longer than the body. Pronotum elliptically transverse, truncate in front and behind; disk yellow, lateral margin hyaline, brown behind, with a very narrow yellow margin. Elytra rusty-yellow, with pale margins. Wings brownish black, fore margin ferruginous, veins black. Femora and tibiæ striped blackish at the apex.

		Male.	Female.
Length of body	...	10 mm.	11 mm.
Length of elytra	...	12 "	11 "
Length of pronotum	...	3 "	3 "
Width of pronotum	...	4.5 "	4.5 "

Habitat.—New South Wales."

PHYLLODROMIA VITREA, *Brunner* (ibid, 109, fig. 8).

"Pale testaceous. Face rusty. Pronotum with pellucid colorous disk. Elytra straw-coloured. Wings hyaline, with brown transverse veinlets. Abdomen pale, brownish laterally.

				Male.
Length of body	...	...	...	10 mm.
Length of elytra	...	...	...	10 "
Length of pronotum	...	...	...	3.2 "
Width of pronotum	...	...	...	4.8 "

Habitat.—Fiji Islands; Vera Cruz, South America."

PHYLLODROMIA LATIPENNIS, *Brunner* (ibid).

"Testaceous. Head large, brown. Pronotum broad, truncate in front and behind, pellucid, concolorous. Elytra with radial area broad; anal vein sinuate, reaching the hind margin beyond the middle. Wings with apex obtuse, radial vein with few branchlets, other veins very irregular, transverse veinlets not at all parallel.

		Male.	Female.
Length of body	...	10 mm.	12 mm.
Length of elytra	...	8.5 "	8 "
Length of pronotum	...	3.5 "	3.8 "
Width of pronotum	...	5 "	5.3 "

Habitat.—New South Wales, New Zealand, Ceylon."

PHYLLODROMIA MUNDICOLA, *Walk.* (Brit. Mus. Cat., 101).

"Fawn-coloured above, yellowish beneath. Head ochreous, antennæ black, base yellowish, longer than the body. Pronotum with white margin and median line. Abdomen with a black stripe along each side, hindmargins of segments white. Elytra much exceeding the abdomen, pellucid, with white costal stripe, veins white in the discoidal and anal areas, transverse veinlets numerous. Wings brownish, as long as the elytra.

				Female.
Length of body	...	...	...	7-8 mm.
Length of elytra	...	...	...	16-17 "

Habitat.—Australia."

PHYLLODROMIA CONJUNCTA, *Walk.* (ibid, 103).

"Testaceous. Antennæ pubescent, a little longer than the body. Pronotum narrowed and truncate in front, straight behind, with a broad, pale, lateral margin. Elytra rounded in front, costal area broad, thickly and irregularly reticulate, veins pale testaceous, transverse veinlets numerous, irregular. Wings pale cinereous, veins paler. Cerci very long, piceous towards the apex. Styles rather long, stout. Legs stout, femora with a few stout spines.

				Male.
Length of body	...	...	...	11-12 mm.
Length of elytra	...	...	...	16-17 "

Habitat.—New Zealand.”

The position of this and the following two species is doubtful, and they may have to be removed to some other genus. They certainly appear not to belong to *Ectobia*.

PHYLLODROMIA CONTIGUA, *Walker* (ibid, 228).

“Testaceous. Head with two pale brownish bands, one in front of the vertex, the other lower. Antennæ testaceous. Pronotum elliptical, narrow in front, and slightly truncate, lateral margins broadly pellucid. Elytra membranous (excepting the base), much longer than the abdomen; radial vein forked, transverse veinlets regular. Abdomen with brown spots on each side underneath. Cerci much longer than half the abdomen.

					Female.
Length of body	...	...	...	...	11 mm.
Length of elytra	...	...	...	...	14 “

Habitat.—New Guinea.”

PHYLLODROMIA SUFFUSA, *Walker* (ibid, 223).

“Ochreous above, pale yellow beneath. Antennæ piceous, base pale yellow. Pronotum truncate in front, transverse, margin broadly pellucid. Elytra rather broad, extending much beyond the abdomen, tapering to the apex; costal margin pellucid, transverse veinlets regular. Wings slightly ochreous, with blackish subcostal stripe for two-thirds of the length from the base. Legs pale yellow. Cerci slender, setose, very long.

					Male.
Length of body	...	...	...	...	9 mm.
Length of elytra	...	...	...	...	11 “

Habitat.—New Guinea.”

The following references are quoted from “Zoological Record,” vols. VI. and IX. :—

PHYLLODROMIA BITAENIATA, *Sauss.* (Mel. Orth., 1870).

Habitat.—Australia.

PHYLLODROMIA SIMILIS, *Saussure* (ibid).

Habitat.—Australia.

PHYLLODROMIA ALBOVITTATA, *Saussure* (ibid, 1873).

Habitat.—New Holland.

APOLYTA, *Brunner* (Syst. 112, fig. 12).

Blatta, Burmeister, Handbk. II., 498, 1839; *Ellipsidium*, *Sauss.*, Hist. Nat. Mex., III., 118.

Body convex, oval when immature, flat in adult. Antennæ as long as, or shorter than, the body; incrassated, hirsute. Pronotum

not covering the head, almost flat, transverse, truncate in front and behind, angles rounded. Scutellum triangular. Elytra with radial vein flexuose, branched; anal vein not curved at the apex. Wings with radial vein forked at the apex; ulnar vein emitting three branches towards the apex. Cerci long, lanceolate.

The genus is entirely restricted to Australia.

The species of this genus are diurnal in habit during all stages moving about the foliage of small trees and shrubs in the bright sunshine of the hottest summer days. They move about very swiftly, fly readily and rapidly, and are very difficult to catch. The larvæ are so different in colour from the adults, that it would be well nigh impossible to assign them rightly for any one not conversant with their habits *in situ*. Moreover, it seems that the larvæ of various species resemble each other much more than the adults.

a. Pronotum pale.

APOLYTA VESTITA, *Burmeister*.

Handb. II., 498; *Br.*, Syst. 112, fig. 10; *Ellipsidium variegatum*, Fabr., *Saussure*, Brit. Mus. Cat. 84.

"Pronotum of the same colour as the body. Antennæ, face, coxæ, femora, tarsi, and abdomen deep black. Vertex, pronotum, elytra, tibiæ, and cerci pale yellowish ferruginous. Apex of elytra brownish. Wings smoky, anterior margin streaked pale yellow. Ventral segments of abdomen bordered white.

	Male.			
Length of body	10 mm.
Length of elytra	12 "
Length of pronotum	3.2 "
Width of pronotum	4.5 "

Habitat.—Australia (*Brunner*); Java (*Burmeister*)."

APOLYTA QUADRIPUNCTATA, *sp. nov.*

Pronotum with broad yellow margin all round; disk pale ferruginous, with two, rather large, oval black spots at the hind angles, and two small round ones in the middle. Elytra brownish-orange, veins and veinlets almost white, very distinct, except anal vein, which is deep brown, and irregularly bordered with white; apex blackish. Wings with costal area whitish, remainder blackish, veins pale brownish. Underside as in *A. vestita*. Cerci wholly ferruginous.

	Male.			
Length of body	10 mm.
Length of elytra	11 "
Length of pronotum	3 "
Width of pronotum	4 "

Habitat.—Vicinity of Adelaide. One male (S.A. Museum)

APOLYTA HUMERALIS, sp. nov.

Head, pronotum, elytra, legs (except coxæ), and cerci pale brownish-yellow, antennæ and coxæ brown, the latter with pale margins. Abdomen paler above, black beneath, segments bordered with white. Elytra concolorous, blackish at the shoulders, veins paler than the membranes.

				Female.
Length of body	...	...	...	10·7 mm.
Length of elytra	...	...	...	11 "
Length of pronotum	...	...	...	2·2 "
Width of pronotum	...	...	...	3·3 "

Habitat.—Northern Territory of South Australia (*J. P. Tepper*). S.A. Museum.

The specimen is somewhat battered, but quite distinct from others, conspicuously so by the dark base of elytra and absence of the dark apex. The wings are brownish.

APOLYTA PALLIDA, spec. nov.

Pale brownish-yellow, almost concolorous, including the legs and underside. Margin of pronotum and costal area of elytra much paler, hyaline. Abdomen above banded brownish, beneath more or less dark-coloured towards the apex, or quite pale. Elytra with the veins and veinlets pale. Wings pale dusky-yellowish.

		Male.		Female.
Length of body	...	10·3–10·5 mm.		8·5–11·5 mm.
Length of elytra	...	10 – 11	"	8·3– 9·2 "
Length of pronotum	1·8		"	1·5– 1·9 "
Width of pronotum	3		"	2 – 3·2 "

Habitat.—Mt. Lofty Range, Tanunda, Kangaroo Island, South Australia. Three of the females have the egg-cases still attached, one of which is almost completely extruded, and only held by the membranous support. The case is dull-brown, sub-trigonal, keel high, 17 rounded teeth visible. Two males and six females (S.A. Museum).

APOLYTA DECORATA, spec. nov.

Head, pronotum, elytra, scutellum, post-scutellum, cerci and legs pale brownish-yellow. Pronotum with very pale translucent margins, disk with two to four minute black dots. Wings pellucid. Elytra with white veinlike lines between the veins, which are yellowish. Abdomen black, above with narrow pale lateral margin, ventrally the segments bordered narrowly with white, except the last, which is pale dusky-yellowish in the male, and piceous in the female.

	Male.	Female.
Length of body ...	9 mm.	9 mm.
Length of elytra ...	8·8 "	8·8 "
Length of pronotum ...	1·6 "	1·4 "
Width of pronotum ...	2·5 "	2·6 "

Nymphs and larvæ. Body ovate, convex, deep black, shining. Vertex narrowly pale-yellowish. Pronotum transverse, hind angles subacute, margin pale all round, widest of the hind angles, the colour gradually passing from whitish exteriorly to piceous, or red towards the middle. Mesonotum with hindmargin bordered pale, hind angles much produced, broadly rusty whitish, the part between the lobes often interrupted by fine black striæ. Metanotum with pale hindmargin distinctly interrupted, lateral margin brownish. Abdomen with the first four or five dorsal segments distinctly bordered by narrow, elongated white dots, between the rows a narrow yellow line interrupted in the middle, first segment sometimes pale at the base; fifth or sixth segment with two small yellow dots close to the median line; the next segment unmarked; the last with plain white margin. Cerci ferruginous. Underside and legs black, coxæ and hindmargins of ventral segments bordered white. Spines all pale.

	Nymphs.	Larvæ.
Length of body ...	7·5 mm.	3·3-4·5 mm.
Length of pronotum	1·6 "	1 -1·2 "
Width of pronotum...	3·2 "	1·7-2·5 "
Width of abdomen...	4 "	2 -3 "

Adults, nymphs and larvæ were found simultaneously to frequent bushes during daytime, running about the branches and foliage, trying to escape observation by slipping to the opposite side very swiftly when disturbed, or drop to the ground.

Habitat.—Mount Lofty Range, Tanunda, Sandy Creek, Nuriootpa, Willunga, South Australia; Fraser Range, Western Australia. Three adults, two nymphs, seven larvæ (S. A. Museum).

A small nymph of some minute species was taken near Tanunda, which I am at present unable to assign to any species or even genus by name. It is elongated, black. Pronotum rounded in front, with broad, smoky, hyaline lateral margin, frontal margin and hind angles of disk white. Lobes of meso- and meta-notum smoky, former with two small triangular white spots in front, latter with white base. Abdomen with the second dorsal segment, the hind angles of all segments, and the middle of the sixth white. Underside and legs black, vertex and spines pale.

b. Pronotum with disk blackish.

APOLYTA PELLUCIDA, *Brunner* (Syst. 114, fig. 10).

Ellipsidium australe, *Saussure* (Rev., &c., Mag. Zool., 1864).

"Antennæ, disk of pronotum, apex of elytra, legs, and abdomen black. Vertex, margin of pronotum and elytra testaceous, broadly pellucid. Wings anteriorly testaceous, posteriorly smoke-tinted.

	Male.		Female.	
Length of body ...	13	mm.	10·5	mm.
Length of elytra ...	14	"	11	"
Length of pronotum...	4·5	"	3·5	"
Width of pronotum ...	4·5	"	3·5	"

Habitat.—New South Wales."

APOLYTA RETICULATA, *Sauss.* (Brit. Mus. Cat., 84, 85).

Habitat.—Australia. Descriptions not seen of this and the following two species.

APOLYTA RETICULATA, *Saussure* (ibid).

Habitat.—Australia.

APOLYTA GRACILE, *Butler* (Cist. Ent., X., 294).

Habitat.—Queensland.

APOLYTA CENTRALIS, *Walker* (Brit. Mus. Cat., 120).

"Black, fusiform, smooth. Head with the fore border, the sockets of antennæ and the palpi dark-red. Pronotum reddish, flat, sides black, deflexed, rounded, foremargin truncate, hindmargin almost straight; disk with a broad, very shallow furrow laterally. Elytra red, subcoriaceous, dark cinereous towards the apex, foremargin black for more than half the length from the base, almost straight; anal furrow (!?) slight. Wings dark cinereous. Abdomen with the disk of underside mostly reddish. Cerci lanceolate, moderately long and stout. Legs piceous, knees and tarsi reddish.

				Female.
Length of body ...	...	...	...	12·5 mm.
Length of elytra ...	...	...	...	15 "

Habitat.—South Australia."

THYRSOCERA, *Burmeister.*

Handb. II., 498; *Br.*, Syst., 115, fig. 11.

"Antennæ often of two colours—blackish and yellow; base hirsute. Pronotum narrow in front, produced behind, rounded, margin deflected. Middle vein of elytra with the basal branches much angulated and emitted towards the apex. Ulnar vein of wings with two or three branches emitted into the apical margin, but none towards the anal vein. Cerci long, lanceolate spathulate."

The genus is remarkable for the smallness of the anal area

The anal vein is very shortly incurved at the hindmargin. Most of the species known are South and Central American, but several occur also in India and the Malay Archipelago.

THYRSOCERA SOROR, *Brunner* (Syst., 120).

"Small. Antennæ of male wholly black, base not dilated. Pronotum small, scarcely produced behind, deep black; margin except in front, pale yellow. Elytra wholly piceous. Legs deep black.

				Male.
Length of body	...	...	...	8.5 mm.
Length of elytra	...	...	...	10 "
Length of pronotum	...	...	...	3 "
Width of pronotum	...	...	...	3.3 "

Habitat.—Celebes."

THYRSOCERA INQUINITA, *Walk.* (Brit. Mus. Cat., 103).

"Black, fusiform, nearly flat, smooth. Head yellow. Eyes very far apart. Antennæ piceous, yellow at the back. Pronotum narrow in front, piceous, with two yellow lines united in front, sides broadly whitish and hyaline, much rounded, hind margin slightly rounded. Meso- and meta-notum, also the base of the abdomen, with a yellow stripe. Abdomen with a slender white margin; hind border of ventral segments white. Cerci long, testaceous. Legs testaceous. Elytra piceous, costa white towards the base. Wings blackish cinereous.

				Male.
Length of body	...	...	...	6.3 mm.
Length of elytra	...	...	...	12.5 " (?)

Habitat.—Australia."

This and the following of Walker's species have been removed to this genus provisionally, as the description appears to agree better than with any other.

THYRSOCERA MARGINIFERA, *Walk.* (ibid, 107).

"Black fusiform, smooth. Head and pronotum thinly punctured. Sockets of the antennæ and foremargin testaceous. Antennæ tawny, blackish at the base, setose. Pronotum with a slender yellowish white margin, fore border truncate, setose, hind border very slightly rounded. Elytra coriaceous, veins slightly elevated, forked at the apex; costal area yellowish white, tapering to apex; anal furrow (? vein) very distinct. Wings blackish. Abdomen piceous, with pale testaceous margin. Cerci, pectus and legs pale testaceous.

				Male.
Length of body	...	...	...	8.3 mm.
Length of elytra	...	...	...	16.5 " (span ?)

Habitat.—Australia."

ISCHNOPTERA, *Burmeister*.

Handb. II., 500 ; *Br.*, Syst., 128, fig. 12-13.

"Body of male oblong, of female rounded. Antennæ twice as long as the body. Pronotum small, orbicular, leaving the head free. Elytra pellucid, veins distinct; radial vein emitting parallel branches; anal vein ending a little before the middle in the hind margin; axillary veins 6-8. Wings hyaline, ulnar vein emitting pinnate branches towards the anal vein, and others directed towards the apex. Subgenital lamina of male with long styles. Cerci long, twelve-jointed.

These insects are very agile in their movements, and mostly diurnal in habit in Australia. Some species hunt for their prey among the foliage of shrubs, others are found under loose bark, &c., but few, if any, occur in human habitations. As indicated by the name (thin-winged), the genus is remarkable for the delicate texture of the organs of flight, their colour being chiefly due to that of the veins. The elytra possess apparently no transverse veinlets, but the membrane is greatly strengthened by fenestrate corrugations between the veins, producing a regularly reticulate appearance. The wings, however, have real, although few, transverse veinlets.

(*Ischnoptera centralis*, Walk. See *Apolyta*.)

ISCHNOPTERA AUSTRALICA, *Brunner* (Syst., 131).

(? *I. marginalis*, Walker, Brit. Mus. Cat. Suppl., 145).

Fulvous ferruginous. Head large, eyes remote. Pronotum almost flat, disk impressed. Wings with foremargin yellowish opaque; apex brownish, radial vein dichotomous, ulnar vein emitting branch "5" into the apical border and branch "3" towards the anal vein.

	Male.			
Length of body	20 mm.
Length of elytra	22 "
Length of pronotum	5 "
Width of pronotum	7 "

Habitat.—New South Wales."

ISCHNOPTERA MARGINALIS, *Walker* (Brit. Mus. Cat., 119).

"Testaceous, smooth. Head and pronotum pale red. Head small, face pale yellow; sockets of antennæ whitish, eyes wide apart. Antennæ tawny, setulose, pale yellow at the base. Pronotum pellucid, slightly deflexed, hindmargin slightly rounded. Abdomen blackish yellow beneath, bordered with whitish. Elytra subcinereous, with a white costal stripe tapering to the apex. Wings blackish, costa white, except near apex.

					Male.
Length of body	...	...	...	...	16 mm.
Length of elytra	...	...	...	...	20 "

Habitat.—West Australia."

ISCHNOPTERA CIRCUMDUCTA, *Walker* (Brit. Mus. Cat. Suppl., 142).

"Testaceous. Head piceous, with sockets of antennæ, foremargin, and palpi testaceous. Eyes wide apart. Antennæ brown, base testaceous. Foremargin of pronotum and sides rounded, hyaline, pale yellow, hindmargin straight, disk with a large blackish ringlet. Elytra coriaceous, costal area pellucid for three-fourths of the length from the base. Wings brownish. Abdomen beneath with brown spots laterally.

					Male.
Length of body	...	...	...	...	10 mm.
Length of elytra	...	...	...	...	12.5 "

Habitat.—Australia."

ISCHNOPTERA ANNULATA, *spec. nov.*

Testaceous, apparently resembling the preceding. Head piceous, face a little paler. Antennæ brownish, setaceous, basal joints pale. Pronotum rounded in front, margins pale all round, disk piceous, with a suborbicular or subtrigonal testaceous spot in the middle, hind margin rounded. Elytra pale dusky yellow, radial vein entire before the middle. Wings very pale, costa near apex narrowly brownish, radial vein unbranched, three series of transverse veinlets. Abdomen pale above and below, with blackish spots laterally. Legs pale. Cerci with dark margins.

					Female.
Length of body	...	...	...	...	11 mm.
Length of elytra	...	...	...	...	12 "
Length of pronotum	...	...	...	...	2.3 "
With of pronotum	...	...	...	...	3 "

Habitat.—Mt. Lofty Range, Kangarilla, South Australia. Captured in April. Two females (S.A. Museum).

ISCHNOPTERA LONGIUSCULA, *Walker* (Brit. Mus. Cat. Suppl., 143).

"Testaceous, elongate fusiform. Head with the vertex and face black. Antennæ brownish, testaceous at the base. Pronotum much longer than half its width, margins pellucid. Elytra narrow, semicoriaceous, the anterior longitudinal veins forked, intermediate distinct. Wings pellucid, anal area with white veins. Abdomen long, pale testaceous.

				Male.
Length of body ...	...	...	...	10 mm.
Length of elytra ...	...	...	...	12 "

Habitat.—South Australia (*Walker*)."

There are three specimens, viz., one male and two females, in the S.A. Museum, collected by the Elder Exploring Expedition at Cootanoorina, which agree so much with the above description that I refer them provisionally to this species. They are almost concolorous, pale dusky yellow, the head and face piceous, mouth part yellow, a patch at the inner base of the antennæ whitish to pinkish.

		Male.		Female.
Length of body ...	9	mm.	9-10·5	mm.
Length of elytra ...	11	"	11	"
Length of pronotum	2·2	"	2·3	"
Width of pronotum ...	2·8	"	3	"

ISCHNOPTERA PATULA, *Walker* (ibid, 143).

"Ochraceous, broad, fusiform. Pronotum with foremargin truncate, sides much rounded, hindmargin straight. Legs stout short, femora setose. Elytra semicoriaceous, costa pellucid, some of the veins forked. Wings pellucid, veins white. Abdomen longer than the wings.

				Male.
Length of body ...	...	...	...	10 mm.
Length of elytra ...	...	...	...	8 "

Habitat.—New South Wales."

Probably referable to *Apolyta*. The references to the veins, &c., are too vague and unmeaning to decide without inspection of the types.

ISCHNOPTERA LATIRUPTA, *Walker* (ibid, 143).

"Ochraceous. Eyes wide apart. Antennæ piceous, testaceous at the base. Pronotum with a fine median line, and a white stripe laterally inside the pellucid margin; hindmargin straight. Femora setose. Elytra slightly coriaceous, with a broad whitish, pellucid, costal stripe, hind part pale testaceous in the left elytra, pellucid in the right. Wings pellucid. Abdomen as long as the wings, with transverse blackish streaks laterally. Cerci moderately long.

				Male.
Length of body ...	...	...	...	8·5 mm.
Length of elytra ...	...	...	...	7 "

Habitat.—New South Wales."

The same remarks apply as to the preceding. The insect may belong to *Temnopteryx*, or allied genus.

ISCHNOPTERA ANASTOMOSA, *spec. nov.*

Pale dusty-yellowish, concolorous. Head with vertex and middle part of face piceous, margin and mouth-parts pale. Antennæ brownish, each joint with a very fine white ring. Elytra semipellucid, radial vein straight, ulnar vein re-anastomosing for a short distance near the middle with the former, and then again separating. Cerci long, lanceolate, 12 joints.

					Female.
Length of body ...	...	...	...	12	mm.
Length of elytra ...	...	...	...	12	"
Length of pronotum ...	...	...	...	2.5	"
Width of pronotum ...	...	...	...	3	"

Habitat.—Little Para River, South Australia. Under bark in April. S.A. Museum.

ISCHNOPTERA MANICATA, *spec. nov.*

Pale brownish yellow. Head with a band between the antennæ, and the lateral margins pale, occiput and a broad stripe down the face brownish or blackish. Pronotum subtrigonal, margins and a triangular space in the disk pale dusky yellowish, disk with two broad, oblique, black stripes laterally, widest in front, and narrowly contiguous; also two oblique short black vittæ behind with a small dot between them. Elytra subcoriaceous, radial vein raised towards the base, narrowly piceous, costal margin narrowly brownish. Wings pellucid, blackish in the middle. Legs pale, except a black patch in front of the fore coxæ. Abdomen with ill-defined brownish transverse bands, interrupted regularly, so as to produce five pale narrow longitudinal lines, margin pale. Underside pale, ventral abdominal segments with blackish spots laterally. Cerci twelve-jointed.

					Male.
Length of body ...	...	...	...	11	mm.
Length of elytra ...	...	...	...	12	"
Length of pronotum ...	...	...	...	2.6	"
Width of pronotum ...	...	...	...	3.5	"

Habitat.—Bordertown, South Australia. S.A. Museum. Under bark of *Eucalyptus rostrata* in January.

ISCHNOPTERA PARALELLA, *spec. nov.*

Brownish yellow. Head pale, except a brownish band between the eyes and an elongated oblique spot opposite the bases of the antennæ. Latter blackish, base pale. Pronotum almost round, with two straight, broad, piceous, parallel stripes widely apart. Elytra concolorous, radial and ulnar veins parallel, distant. Wings pellucid, veins blackish, anterior area with numerous

transverse veinlets. Abdomen dull brownish, margin pale; underside concolorous. Cerci broadly lanceolate, 12-jointed, pale above, with the margin narrowly black towards the apex, and the underside with narrow pale bands. Subgenital lamina of female with a black dot at the apex.

				Female.
Length of body	...	...	...	9 mm.
Length of elytra	...	...	...	10.5 "
Length of pronotum	...	...	...	3 "
Width of pronotum	...	...	...	4 "

Habitat.—Kangaroo Island in the early part of March. Beverley, Western Australia; February (presented by Mr. J. W. O. Tepper). S.A. Museum.

ISCHNOPTERA CONTRARIA, *spec. nov.*

Pale dusky yellowish. Head pale, occiput narrowly pale-brownish, face with two larger oval brownish spots between the antennæ, and three minute ones below them. Last joint of palpi brown. Pronotum almost round, margin almost colourless, dark pale-yellow, with two narrow, oblique piceous stripes irregularly sinuate, wide apart in front near the middle of the disk and close behind, in front of each a small brownish figure composed of three short vittæ resembling an arrowhead directed sideways. Elytra concolorous, radial and ulnar veins parallel. Wings pellucid. Abdomen above very pale, below with short, very slender, black lines at the base of the ventral segment, and beyond them with a row of minute dark dots on each side. Cerci pale.

				Male.
Length of body	...	...	...	13 mm.
Length of elytra	...	...	...	20 "
Length of pronotum	...	...	...	3.2 "
Width of pronotum	...	...	...	3.2 "

Habitat.—Murray Bridge, South Australia. On shrubs of *Aster axillaris*, end of November. S.A. Museum.

ISCHNOPTERA OBSCURA, *spec. nov.*

Brownish yellow. Head and face deep-brown, except the pale space near the antennæ. Pronotum almost round, fore and lateral margins narrowly pale, pellucid, disk and hindmargin deep-brown. Elytra subcoriaceous, veins brown, membrane pale, pellucid; radial vein separated from ulnar, blackish towards the base, both veins parallel. Wings pale, pellucid. Abdomen pale above, with dusky lateral spots, darker below as well as the legs. Cerci setose, banded brownish.

				Female.
Length of body	...	...	...	10-12 mm.
Length of elytra	...	...	...	11-12 "
Length of pronotum	...	...	...	2- 2.3 "
Width of pronotum	...	...	...	2.5- 3 "

Habitat.—Norwood, South Australia; Kangaroo Island; Lillimur, N.W. Victoria. Captured in March and April. Three specimens, S.A. Museum.

The specimen from Norwood belongs perhaps to *I. anastomosa*, the radial and ulnar veins anastomosing similarly, although the closed cell is much narrower, but the colour markings are different.

ISCHNOPTERA PUNCTUOSA, Walker.

Brit. Mus. Cat. Suppl., 149.

"Cinereous, fusiform, *very minutely punctured*. Head testaceous, face with a black patch, and three anterior black spots. Antennæ piceous. Pronotum *thinly tuberculate, hooded* in front and *extending slightly in front* of the head, rounded before and behind, *sides nearly angular*, a transverse patch on the disk behind. Elytra *with numerous irregular brown dots*, and numerous irregular transverse veinlets. Wings pellucid, with a whitish costal streak, and whitish veins. *Femora unarmed*.

				Female.
Length of body	...	...	...	8 mm.
Length of elytra	...	...	...	10 "

Habitat.—Australia."

Although recording this species under Walker's name here, I do so very doubtfully. On account of the unarmed femora it seems to belong to another section, and, if recognisable, should be removed to the neighborhood of *Panchlora*. It may form the type of a genus, or subgenus (*Pseudo-panchlora*) with the italicised parts of the above description as distinctive characters.

ISCHNOPTERA AUSTRALIS, Saussure (Mel. Orth., 27, fig. 17).

Habitat.—Australia.

ISCHNOPTERA FULVA, Saussure (ibid).

Habitat.—South Australia.

ISCHNOPTERA TERMITINA, Saussure (ibid).

Habitat.—Australia. (Walker, Brit. Mus. Cat., 119).

ISCHNOPTERA TRIRAMOS, Saussure (ibid, 2 me. fasc., 1870).

Habitat.—Australia. (See Zool. Record, vol. VI., 459).

III. EPILAMPRIDÆ.

Head depressed. Antennæ setaceous, and shorter than the body, or moderately thick and longer. Pronotum transverse, in winged species produced behind. Elytra coriaceous, horny, or lobiform. Axillary veins, when present, crowded. Wings either perfectly explicate or absent, radial vein much branched, ulnar vein pectinate. Legs long, femora spined. Abdomen in both sexes oval, dorsal segments acute, angular behind. Supra-anal lamina of male quadrate, of female incised with rounded lobes, or entire, broad and round. Cerci shorter than lamina, or scarcely longer. Subgenital lamina of male transverse, with long styles. (The principal distinctive characters are supplied by the supra-anal lamina and the cerci).

PARAPHORASPIS, *Brunner* (ibid, 163, fig. 18).

(*Phlebonotum*, Saussure, Mel. Orth., I., 13, fig. 8),

"Antennæ setaceous, very slender. Pronotum rounded in front, and slightly rounded or tubercular behind. Elytra convex, base not dilated, apex acuminate or rounded, horny, with veins distinct above. Wings rudimentary or perfect, fore part acuminate at the apex, anterior area coriaceous and with few veins, ulnar vein with pennate branches towards the dividing vein, none towards external margin. Legs slender, femora with distant spines. Abdomen of both sexes dilated; of the male with seven, of the female with eight segments. Supra-anal lamina of male transverse, of female triangularly produced, incised in the middle; ventral segments scarcely constricted, the last segment of female triangular, acuminate, somewhat keeled, with two lateral folds. Cerci very short, dilated."

The distinct veins of the convex elytra and the truncate pronotum are the principal generic distinctions. Two species are described; one *P. pallens*, Serv., from Java and Ceylon.

PARAPHORASPIS NOTATA, *Br.* (ibid, 164, fig. 18).

"Reddish testaceous. Pronotum small, deflexed laterally. Elytra acuminate, dusted with black, or concolorous, foremargin brown, bordered with pale yellow, at the base and near the radial vein streaked with pale yellow. Wings with the foremargin of the colour of the body, coriaceous, veins deep-reddish anteriorly, radiating veins brown. Abdomen brown above. Both sexes winged.

	Male.	Female.
Length of body ...	16 mm.	17.5 mm.
Length of elytra ...	15 "	15 "
Length of pronotum ...	4.5 "	5 "
Width of pronotum ...	5.8 "	7 "

Habitat.—Victoria, Australia; Ceylon."

EPILAMPRA, *Burmeister*.

Handbk., II., 594; *Br.*, Syst., 167.

Antennæ setaceous, of half the length of the body or not much more. Elytra leathery or almost horny, shining, veins scarcely conspicuous; anal area crowded with veins. Wings with radial vein much branched; ulnar vein pectinate inferiorly. Abdomen depressed (in the male, often rather convex in the female), in both sexes ovate, dorsal segments produced behind in acute teeth, last ventral segment of male wholly concealed mostly. Supra-anal lamina of both sexes transverse, bilobed. Subgenital lamina of male transverse, rounded, with long styles. Cerci short, many-jointed. Only the males are winged, the larger females possessing only lobiform elytra, which scarcely exceed the mesonotum. In some of the new species described both sexes appear to be wingless, in which case the lobes of the males are longer, and rounded at the apex, while those of the female are truncate, and some even do not attain to these, yet appear to be quite mature, and both might be placed into separate subgenera. Another remarkable circumstance is, that in the larval stages they are paler and much more promiscuously marked than in the adult, the marks becoming gradually obliterated, the description of the larval forms are therefore necessary for complete recognition. The insects live under bark, stones, logs, dead vegetable debris, or bury themselves in loose dust or soil by day. The males fly about just after sunset, or earlier on cloudy, dull days, while the females wander about among the grass or ascend low objects. The former are very swift on foot, but do not readily take to their wings; their flight is rather slow and fluttering, resembling that of some large moths. When struck-at in an attempt of capture, they drop and stop suddenly at the first slight cover found, or bury slightly in the dust, if such be there. This species never frequents houses, and appears to be wholly destitute of odour, especially the males.

EPILAMPRA GRACILIS, *Brunner* (Syst., 170).

E. fornicata, Sauss.; *atomifera*, Walker (Brit. Mus. Cat., 69).

Male.—Dirty brownish grey. Face with a broad, black, band between the eyes, nearly divided by a narrow pale line anteriorly. Pronotum subrhomboidal, anterior and lateral margins pale and unmarked; hindmargin pale with eight to ten short, radially arranged, black vittæ; disk pale, with more or less thickly-scattered, irregular black spots, streaks and minute dots, divided by a narrow pale medium line. Elytra pale, with a black streak in front of the radial vein for about one-third of the length from the base, remainder with numerous small blackish dots scattered along the veins, excepting the pale costa. Wings

with the anterior part pale brownish, veins brown, posterior part pellucid; transverse veinlets distant, regular, whitish. Meso- and meta-notum pale, irregularly and indistinctly spotted. Abdomen with the hindmargin of the dorsal segments broadly brownish, ventral segments pale, with a submarginal row of black spots. Supra-anal lamina pale, subrotundate, hindmargin slightly emarginate. Cerci about one-half longer than the lamina. Styles minute.

Female.—Body broadly ovate, much wider behind, light brown, with crowded, minute granulations all over. Pronotum semi-elliptic, hindmargin slightly rounded, colour and markings similar to male, but darker. Meso- and meta-notum with the disk marked by black patches and dots more or less confluent; hindmargin pale, with about 14 short, black streaks; meta-notum somewhat angularly-produced medially and much laterally behind. Elytra subrotundate, slightly exceeding the mesonotum, with a black streak medially, and some black dots behind. Abdomen dorsally with similar marks as thorax, margin indistinctly pale, hind angles slightly produced. Supra-anal lamina entire, rounded, with minute black spots; ventral segments ochraceous, lateral margin black, a row of black, submarginal spots, hindmargin streaked with black, last segments black, with a pale medium spot, and some others, sometimes more or less obliterated along the base. Cerci very short. Larvæ much paler, markings indistinct.

	Male.	Female.	Larva.
Length of body	... 17-20 mm.	16-21 mm.	15 mm.
Length of elytra	... 17-20 "	3-4.5 "	—
Length of pronotum	... 4-5 "	4-4.5 "	5 "
Width of pronotum	... 6-7 "	9-10 "	9 "
Width of abdomen	... —	13-15 "	11 "

Habitat.—Vicinity of Adelaide, Burra, Gilbert River, South Australia; September to May. S.A. Museum. Port Adelaide, Sydney, Tasmania (*Brunner*).

The above description has been drawn from 10 males, 3 females, and one larva, varying considerably in size, details of colour, &c.; but all show the disk of the closed elytra pale, and otherwise the various markings pass gradually into each other, so that no distinctions could be set up.

EPILAMPRA NOTABILIS, *Walker* (Brit. Mus. Cat., 202)?

Male.—Deep brownish testaceous, resembling the preceding. Pronotum with very pale margin all round, unmarked, except the black striæ behind; disk black, the middle either paler or not, with a testaceous median line and some variable lateral pale marks. Elytra brown, translucent, costal margin broadly pale

testaceous, unmarked, extending nearly to the apex; humeral streak deep brown to deep black, narrow near base, broad towards the middle, beyond this interrupted by the pale veins; remainder of area with numerous small, more or less intensely dark spots, apical part with regular, transverse, whitish veinlets; left elytron wholly opaque and speckled to the apex, the right one with the apical part unmarked and pellucid where covered, limit oblique sinuous. Wings brown or blackish, costal margin opaque, whitish in the middle; veins deep brown; transverse veinlets narrowly whitish. Abdomen obscurely testaceous, more or less distinctly banded above with brown. Underside and legs pale, stigmata and spines black. Supra-anal lamina large, entire or slightly emarginate, pale. The insect appears to be almost black, excepting the pale margin, when at rest.

Female.—Blackish, with pale longitudinal bands, obscured and interrupted by black speckles. Head and abdomen marked as in the male; hindmargin of all segments with short, black vittæ, hindangles straight or slightly produced. Underside of thorax and the legs pale, ventral abdominal segments reddish, with broad black margin laterally, either entire or interrupted by pale spots, or a broad red space at the apex. Supra-anal lamina broad, rounded, entire or slightly furrowed in the middle. Larvæ and nymphs similar to female, paler, and the markings more distinct than in the adults.

	Male.	Female.	Larva.
Length of body ...	17–20 mm.	16–18 mm.	9–15 mm.
Length of elytra ...	20–24 “	3 “	—
Length of pronotum ...	5 “	5 “	3–4 “
Width of pronotum ...	6–7 “	7–8 “	5–7 “
Width of abdomen ...	7 “	11–12 “	6–9 “

Habitat.—Ardrossan, Yorke's Pen., Callington, Sedan, Port Pirie, Bordertown, Kangaroo Island: South Australia; Lillimur, N.W. Victoria. S.A. Museum. Australia (*Walker*, loc. cit.).

I have re-described the species under Walker's name, as it appears to agree fairly well with his description, incomplete as it is, in order to avoid a new name. It is widely distributed, inhabits dry, hot localities, and has the habits of *E. gracilis*.

EPILAMPRA FRASERENSIS, *spec. nov.*

Male.—Resembling the last. Pronotum without distinct median line, with two oblique, pale stripes parallel to the lateral margins. Mesonotum and scutellum with a blackish transverse band and dots. Elytra much narrower and longer in proportion, with brown blotches (partly confluent with sinuous bands), especially in the anal area. Abdomen above with broad, blackish, transverse bands notably conspicuous in the last segments, and a

lateral row of conspicuous, oval, blackish spots. Ventrally pale yellowish, a marginal row of small round dots, and a double, submarginal row of elongated, oval, blackish spots. Wings blackish.

	Male.	Larva (Everard R.).
Length of body ...	19 mm.	12 mm.
Length of elytra ...	24 "	—
Length of pronotum ...	5 "	3.5 "
Width of pronotum ...	7.5 "	6.5 "

Habitat.—Fraser Range, S. W. Australia. Two males (*R. Helms*), S.A. Museum.

A half-grown female larva from the Everard Range belongs probably to this species also. It differs from those of *E. notabilis* in being much paler, the dark speckles very minute and almost evenly distributed, and not forming blotches or stripes, and the striae of the hindmargins of the segments being shorter, more numerous, much raised, and dark-coloured. The underside is dusky-yellowish; the margins broadly blackish, except the extreme edge; the submarginal spots rather large, a row of dark oval spots medially, and the hindmargins of the segments with short, dark vittae, the disk being minutely dark speckled.

EPILAMPRA PAULA, *spec. nov.*

Male.—Whitish-yellowish. Head with a deep black band in front. Pronotum short, broad, much and regularly rounded behind; margins all whitish, hind border with the usual black vittae, disk almost uniformly speckled with black. Elytra, with costal area whity-yellowish, broad at the base, tapering to the apex; a short, black, humeral stripe, remainder brown, with some darker indistinct spots. Pectus, legs, and ventral segments of abdomen pale; hindmargin of latter very pale, lateral margins with four dusky spots, a submarginal interrupted black or brown stripe, widest posteriorly with an included white dot on some of the segments, and a slender dark median line. Subgenital lamina rather narrow and long, distinctly emarginate. Cerci blackish beneath.

Female.—Clouded reddish-brown, dorsal thoracic segments dusky-yellowish, with black irregular markings, and the typical vittae on the hindmargin of all segments. Abdomen above with rather large, black, submarginal spots; ventrally black and brown-speckled laterally, and a slender dark median line.

	Male.	Female Nymph.
Length of body ...	14 mm.	17 mm.
Length of elytra ...	16 "	4 "
Length of pronotum ...	3.6 "	4.2 "
Width of pronotum ...	6 "	6 "

Habitat. — Ardrossan, Yorke's Peninsula, and Callington, South Australia. S.A. Museum.

This is the smallest species, and easily recognised by the almost total absence of speckles on the elytra, and the dark median line on the underside of the abdomen. Captured in January and February.

EPILAMPRA INQUINITA, Stål. (*Brunner, Syst.*, 177).

Epilampra nudiventris, Saussure (Mel. Orth., 2nd fasc. Zool. Record, vol. VI., 1870).

"Chestnut testaceous. Head brownish-black. Labrum testaceous. Antennæ ferruginous. Pronotum flat, black spotted all over; disk black, lateral margin broadly, fore and hind-margins narrowly, testaceous. Male with the foremargin of elytra testaceous, spotted black; disk ferruginous, marbled with brown; streaks near radial vein black, continued to middle. Apex of wings brownish. Female with the elytra, and still more the wings, abbreviate, rounded.

	Male.	Female.
Length of body ...	28 mm.	31 mm.
Length of elytra ...	28 "	10.5 "
Length of pronotum ...	7 "	8 "
Width of pronotum ...	9.5 "	11 "

Habitat.—Sydney, New South Wales."

Originally this species included, probably, *E. truncata*, *auriculata*, and *gracilis*. Since the date of Brunner's work, Stål made this species the type of his genus *Molytria* (*Recherches, &c.*, Blattidæ, Svensky Vetenskap Akad., Stockh., Bihang, II., 1-18; see Zool. Record XII., 487, 1877), but as I have not seen that work, I prefer quoting it under the present designation.

EPILAMPRA TRUNCATA, *Brunner* (Syst., 178).

"Chestnut coloured. Pronotum small, scarcely covering the head, testaceous, disk irregularly brownish, somewhat produced behind, bordered all round (margins incassated), impressed scabrous dots very fine, mostly scattered. Elytra of the female incumbent, sutural (hind) margin a third shorter than the costal, veins distinct, impressed dots very scabrous, brown dots scattered. Wings rudimentary. Abdomen with rugose marginal folds.

	Female.
Length of body... ..	19 mm.
Length of elytra, costa... ..	5.3 "
Length of elytra, hindmargin	3.8 "
Length of pronotum	5.5 "
Width of pronotum	8 "

Habitat.—Sydney, New South Wales."

EPILAMPRA KERANDREMII, *Le Guillon*.

Rev. Zool., 292, 1841; *Br.*, Syst., 182.

"Cinereous, speckled with brown. Palpi testaceous. Antennæ brown. Elytra cinereous, with 8—10 brown spots arranged longitudinally in two rows. Legs pale brown. Abdomen above cinereous, with 10 brown spots, space between pale brown, segments on both sides exteriorly with obscure spots.

Length of body 36 mm.

Width of body 14 "

Habitat.—Triton Bay, New Guinea (*Le Guillon*)."

EPILAMPRA DILATATA, *Brunner* (Syst., 185).

"Brownish. Head blackish brown. Pronotum broad, brownish testaceous, with black dots. Elytra broad, very obtuse at the apex, of similar colour and markings as the pronotum, clouded with brown towards the apex. Abdomen brown; fourth, fifth, and sixth dorsal and all the ventral segments sometimes with longitudinal brownish streaks.

Length of body Female.
32 mm.

Length of elytra 27 "

Length of pronotum 8 "

Width of pronotum 12 "

Habitat.—Australia."

EPILAMPRA LATICOLLIS, *Walker* (Brit. Mus. Cat., 203).

"Livid. Face and a broad stripe on the vertex piceous. Antennæ red, piceous towards the base. Pronotum with numerous small brown dots, sides semihyaline, hindmargin almost straight. Elytra semicoriaceous, irregularly speckled brown; at and near base of radial vein some black speckles, branches forked. Wings ashy, veins testaceous, along the costa some brown speckles; anal area pale cinerous, veins whitish. Supra-anal lamina bilobed. Cerci piceous, apex tawny.

Length of body Female?
34 mm.

Length of elytra 32 "

Habitat.—Richmond River, New South Wales."

If the sex be rightly stated, this species certainly belongs to another genus, on account of the perfect elytra of the female. Said to resemble *E. notabilis* (male?), but to be much larger, the head more concealed by the pronotum, and the wings longer.

EPILAMPRA ASPERA, *spec. nov.*

Male.—Pale-grey. Head with a broad brownish-black band at the vertex, a stripe extending on each side to the middle of

the face, leaving a whitish patch between them. Antennæ blackish with delicate-pale rings, base pale. Pronotum anteriorly with three slender, black, curved striæ in the disk on each side; also some irregular black spots and points behind. Elytra narrow, apex rounded, pale-grey; radial vein narrow deep black at the base, paler beyond the middle, with thinly-scattered brownish and blackish speckles along the veins. Wings whitish, pellucid. Abdomen above with pale lateral margin, segments with indistinct dusky bands, and brownish, submarginal vittæ. Legs with the exterior margin narrowly brown. Ventral segments with numerous minute asperous points, whitish; a marginal row of minute black dots, and short, submarginal, deep brown streaks, viz., two obliquely placed to each other on each segment; also two small black spots near the median line on the penultimate segment. Supra-anal lamina pale, pellucid, rather deeply emarginate. Cerci slightly longer, testaceous.

Female.—Pale ochraceous. Head with a piceous band at vertex, one across the middle of the face and one across the labrum, the two latter sometimes united in the middle, or outline indistinct. Antennæ brownish or ferruginous. Dorsal segments asperous or rugose, with numerous raised tubercles and impressed dots, many of the former with recurved sharp points. Pronotum nearly straight behind, with pale margins in front and laterally; disk with indistinct, dusky blotches; hindmargin with the typical raised vittæ. Elytra lobiform, subacuminate. Meso- and meta-notum, also abdominal segments, broadly but faintly darker behind. Legs with the coxæ marked with black anteriorly. Abdomen with ventral segments bordered brownish behind; fine longitudinal, interrupted bands, formed by dark blotches; lateral margin broadly blackish, and submarginal band of a round spot and an oblique streak. Supra-anal lamina broad, emarginate, with two dusky, inverted semicircular lines. Subgenital plate with four blackish spots, a medial and two lateral blackish lines converging to apex. Cerci very short, pale.

LARVÆ similar to female, much paler, and the longitudinal markings more distinct.

	Male.	Female.	Larvæ.
Length of body ...	17 mm.	18-25 mm.	9-13 mm
Length of elytra ...	20 "	3-4 "	—
Length of pronotum...	5 "	4-5 "	2.5-4 "
Width of pronotum ...	6 "	7-8 "	4.5-6.6 "

Habitat.—Western Plains, The Peak, Angebuckina (*Driffield*), Yorke's Peninsula, South Australia; Eyre's Sandpatch near Eucla, Western Australia. S.A. Museum. The species differs from all others by the pale colour, and the asperous dorsal surface.

A young larva from North Queensland, presented by C. French, Esq., is also referred to this species.

EPILAMPRA OBSCURA, spec. nov.

Female.—Dull reddish-brown, with numerous, fine, impressed dots, and slightly asperous granulations. Head with a brownish or black band at the vertex, sometimes extending to the middle of the labrum. Antennæ pale brownish, basal joints much paler. Pronotum with fore and lateral margins dirty-yellowish, this colour extending to the elytra and metanotum, hindmargin narrowly pale, interrupted by the raised black vittæ; disk dark-brown, with a narrow reddish median line and paler markings surrounding darker ill-defined spots or dots. Elytra lobiform, short, oval, with a dark medial line and dark impressed dots. Meso- and meta-notum similar to pronotum. Abdomen banded transversely with reddish brown and dusky yellowish, lateral margin darker than the disk, hindmargins with black vittæ. Supra-anal lamina truncate. Ventral segments with larger and smaller black blotches; subgenital lamina black, except some small reddish spots at the base and a reddish streak at the apex.

	Adult Fem.	Fem. larva.
Length of body ...	23 mm.	13 mm.
Length of elytra ...	3 "	—
Length of pronotum ...	5 "	3 "
Width of pronotum ...	10 "	7 "
Width of abdomen ...	15 "	10 "

Habitat.—Northern Territory of South Australia (S.A. Museum). Presented by Hon. Dr. W. Magarey. The larva is without the reddish tints.

EPILAMPRA PROPRIA, Walker.

Blackish, very shining. Head with a black band at vertex and two reddish or blackish ones across the face. Antennæ pale brownish. Pronotum with distinctly scattered impressed dots, fore and lateral margins dirty yellowish, with black dots, border incurved, narrowly brown; disk shiningly black, with a short, lurid median line and 2-4 lurid spots near it; hindmargin alternately black and pale, straight. Elytra of male very long, costa pale yellowish, space before radial vein broadly blackish, remainder dull brown. Wings large, smoky brown, veins black. Elytra of female uniform, apex subtruncate, with a more or less extended black median line and black dots. Coxæ streaked black in front. Abdomen of male pale below except piceous submarginal spots; of female with very narrow pale lateral margin dorsally, each segment with six small, ill-defined, double

dots, forming as many longitudinal lines; hindmargin with the usual vittæ. Ventral segments very broadly black laterally, confluent at the apex of the abdomen, with some pale spots; disk reddish-brown or ferruginous, with a few black spots; of male pale, except the submarginal piceous spots. Supra-anal lamina broad, rounded, middle wrinkled. Cerci slender, pale. Subgenital lamina of male subquadrate, entire, truncate.

		Male	Female.
Length of body ...	...	22 mm.	19 mm.
Length of elytra ...	...	22 "	3 "
Length of pronotum ...	...	5 "	5 "
Width of pronotum ...	...	7.5 "	8-10 "
Width of abdomen ...	...	— "	10-13 "

Habitat.—Goolwa, Blakiston, Mannum, Kangaroo Island : South Australia. March to April. S.A. Museum.

The black raised vittæ of the hindmargin of the (female) abdominal segments are remarkably long, and in the spaces above small impressed dots, forming two irregular transverse series, are noticed. As this is probably the species described by Walker as *Polyzosteria propria* from Western Australia, Victoria, New South Wales, and Tasmania, I have retained his specific name

EPILAMPRA ATRA, spec. nov.

Black, shining. Elytra of both sexes lobiform. Head pale, vertex and face brownish; sides, antennæ, and mouth parts dirty yellowish. Pronotum with fore and lateral margins narrowly pale dusky yellowish, dotted with brown; disk more or less clouded with indefinite lurid marks. Elytra with costa dirty-yellowish, remainder black, a deep furrow along the radial vein. Wings absent. Abdomen shining black, anterior angles very narrowly yellowish; submarginally with an indefinite row of lurid spots or bars when young. Underside and legs reddish-brown; ventral abdominal segments partly with black lateral margins and submarginal rows of oblique elongate spots.

		Male.	Female.
Length of body ...	...	23 mm.	25-27 mm.
Length of elytra ...	...	3 "	4-5 "
Length of pronotum ...	...	6 "	6 "
Width of pronotum ...	...	10 "	12 "
Width of abdomen ...	...	15 "	15 "

Habitat.—Sedan, Murray Scrub, South Australia. S. A. Museum.

The specimens, one male, and two females, were presented by Mr. F. Rothe, who captured them in December, 1885.

The species differs from all others, besides the colour, in the

absence of perfect wings in the male and the usual row of raised vittæ on the hindmargin of the abdominal segments, but this is not considered sufficient for the establishment of a new genus.

EPIILAMPRA MEDIVENTRIS, *Saussure* (Rev. Zool., XVI., 321, 1864; Brit. Mus. Cat., 76).

Habitat.—Tasmania.

EPIILAMPRA PECTINATA, *Saussure* (Mel. Orth., II., fasc., 1870).

Habitat.—Australia.

EPIILAMPRA IRRORATA, *Thunberg* (Nov. spec., 4, 76; Fabr. Ent. Syst., II., 8; Brit. Mus. Cat., 231).

Habitat.—Australia.

If Walker's references be correct, the name represents *Deropeltis erythrocephala*, Fabr., *Blatta Capensis*, Thunberg.

The above specific name is not cited by Brunner, although the works mentioned by Walker are quoted, and the pages next to his.

OPISTHOPLATIA, *Brunner* (Syst., 198, fig. 22).

"Body oblong. Pronotum with hindmargin straight, or broadly emarginate. Elytra and wings abbreviated or scale-like. Abdomen very broad behind; of the male flat, of the female rather convex; hindmargin of all segments rugose, with raised streaks. Cerci very small. Last segment of female triangular, broadly sinuate."

The presence of both elytra and wings is the chief distinctive character. Of the four species known, two occur chiefly in Asia and the Malayan Islands, the others in South America.

OPISTHOPLATIA ORIENTALIS, *Burmeister*.

Handbk. II., 482; Br., Syst., 199.

"Red, dorsum black, margin brownish-red. Pronotum with the anterior margin testaceous. Elytra and wings lobiform, acuminate, equal in length, blackish, foremargin red.

	Male.		Female.	
Length of body ...	24	mm.	27-33	mm.
Length of elytra and wings	4.5	"	5.6	"
Length of pronotum ...	7.5	"	8-9	"
Width of pronotum ...	12	"	14-15	"

Habitat.—Australia (*Brit. Mus. Cat.*, 152); India, China, Brazil (*Syst.*). The home of this species is most likely North Australia, or Queensland; *O. australis*, Burm., inhabits Brazil, not Australia.

IV. GEOSCAPHEUSIDÆ (Earth-diggers). *Fam. nov.*

Antennæ submoniliform, rather stout, scarcely exceeding one-fourth of the length of the body. Pronotum anteriorly arched, truncate, straight behind, wholly concealing the scutellum. Elytra and wings none. Abdomen very broad, oval, dorsal segments acutely angular, two penultimate segments with a retrorse spine on each side, vent covered hermetically by the last segments. Supra-anal lamina of both sexes subtruncate, entire. Cerci very short, thick, apparently inarticulate, partly concealed by a fold of the segment. Subgenital lamina of male subsemicircular; styles none.

The place of this family has already been indicated, see p.

Burrowing is a character well developed among the Gryllidæ (Mole-crickets, &c.), and indicated by a special modification of the forelegs, viz., the short, thick, flat tibiæ, and the long, radiating spines, but I cannot find any references that such habits or modifications have been recorded as occurring among the Blattariæ, and so distinctly exhibited by the individuals of this monotypic family. An approach is made by the EPILAMPRIDÆ, and to a less extent by *Oniscosoma*, a genus of the PANCHLORIDÆ. With these the shortened fore-tibiæ are much incrassated, and armed with long stout spines. The latter are, however, still normally arranged, *i.e.*, in two series, and not differing in this respect from the other groups. In the present instance a great departure from the normal type is noted, viz., the conversion of the forelegs, and especially the tibiæ, into perfect digging implements comparable only with those of the Mole-crickets, the fore-tibiæ being short, broad, and flat, and the long spines arranged digitately in a single series around the margin. A single posterior spinelet denotes the second series. This character, combined with the unique form of the body and the genital appendages have induced me to establish for this species a new genus and family.

GEOSCAPHEUS, *gen. nov.* (*gé*=earth; *scapheus*=digger).

Body broad, oval, thick, coarsely impressed punctate. Head large, rugose. Antennæ moniliform, with joints much thicker than long, about one-fourth of the length of the body, placed in the centre of circular, depressed, whitish areas. Palpi stout, joints subequal. Pronotum transverse; margins slightly incurved, coarsely punctured; foremargin arched over the head; a small, round, depressed area anteriorly, surrounded by a ridge (which is most prominent in front) and separated from the disk by deep furrows; disk tumid in front, finely punctured. Meso- and meta-notum similar, neither excavated nor tumid. Abdomen with eight dorsal segments, very coarsely punctured, hind angles

of the two penultimate segments produced and forming stout, recurving spines. Legs very stout, spines long. Fore coxæ subcylindrical, deeply incised at the apex. Fore femora scarcely as long as the coxæ, incrassated, with three long curved spines near the middle. Fore tibiæ very short, flat, with eight radiating long spines in single series around the margin, besides one or two smaller and movable in the disk. Tarsi very slender, five-jointed, first joint about twice as long as any of the following three; last longer than the first. Pulvilli very minute or absent. Supra-anal lamina transverse, broad, subquadrilateral, slightly rounded behind in both sexes, narrower in the male. Penultimate segment of male with the hindmargin roundly and broadly emarginate, for the reception of the subgenital lamina. Ventral segments smooth, shining, lateral margins punctured. Styles none.

GEOSCAPHEUS ROBUSTUS, spec. nov.

Deep reddish-brown, margins of thoracic segments paler. Mouth parts and palpi black, whitish about the joints. Antennæ blackish. Legs mostly, also the apical part of the spines, very dark, remainder brownish-red. Larvæ smaller, almost wholly black; dorsal segments of abdomen narrowly dark-brown at the base.

	Male.	Female	Larvæ.
Length of body ...	34 mm.	35–38 mm.	27–30 mm.
Length of pronotum...	8 "	8.5–9 "	6.5–8 "
Width of pronotum...	17 "	17–18 "	13–15 "
Width of abdomen ...	23 "	23–28 "	19–20 "

Habitat.—Silverton, New South Wales; Renmark, South Australia (S.A. Museum).

These singular insects were first brought under my notice by Mr. F. A. Fiveash, who captured a pair at Silverton (in the vicinity of the Broken Hill Mines), and presented them to the S.A. Museum in November, 1886, remarking in his note that they lived in the ground. This was proved by pellicles of red clay still adhering to the legs and body. On November 14, 1891, a small adult female and three male larvæ were sent by Mr. R. H. Q. Simmons from Renmark, the South Australian irrigation colony on the River Murray, near the New South Wales boundary. Nothing is known of their habits, food, &c.

V. PERIPLANETIDÆ.

Abdomen of female with the last ventral segment cleft, forming free valvules. Femora spined.

The family is very numerous in species, and is distributed over the larger part of the surface of the earth, being represented in

Australia by numerous endemic species, besides others of cosmopolitan habitus; indeed it is the largest in Australia.

It may be conveniently divided into two sub-families, viz., A. POLYZOSTERINÆ—(integument more or less corneous and rigid; wings wholly or almost wholly absent)—and B. PERIPLANETINÆ—(integument rather soft and leathery, wings perfect or rudimentary). The first admits again of a natural subdivision into POLYZOSTERLÆ and PLATYZOSTERLÆ, characterisable as follows:—

a. Body broadly oval. Ocelliform spots obsolete. Organs of flight entirely absent. Tibiæ stout, spines stout, short. Abdomen dorsally with prominent stigmatic dots. Supra-anal lamina of female broad, rounded, more or less incised, lobes rounded. Cerci short, depressed. Subgenital lamina of male with short, obtuse styles. POLYZOSTERLÆ (*Anamesia*, *Polyzosteria*).

b. Body elongate oval. Ocelliform spots (two) at base of antennæ more or less distinct. Tibiæ compressed, spines long, slender. Abdominal stigmatic dots not distinct dorsally. Supra-anal lamina of female triangular, emarginate. Cerci as long or longer than lamina (blackish). Subgenital lamina of male with slender acuminate styles.

PLATYZOSTERLÆ (*Platyzosteria*, *Leptozosteria*, *Pseudolampra*, *Knephusia*).

ANAMESIA, *gen. nov.* (Intermediary).

Body broad, *subfusiform* (abdomen distinctly wider than thorax), moderately convex; texture coarse. Pronotum semi-circular, hindmargin flexuose (concave laterally, convex in the middle); hindangles *rounded*, or slightly angular. Elytra of both sexes obsolete. Legs *long, slender*, notably the last pair; tarsi as in *Polyzosteria*. Supra-anal lamina of male *quadrate* or *subquadrate*, hindmargin slightly and broadly emarginate, or rounded. Cerci straight or sublanceolate, shortly acuminate, in both sexes distinctly exceeding the lamina, apex shortly acuminate. Styles rather long, slender, acute.

The generic name refers to the intermediary form of body between *Geoscaphus* and *Polyzosteria*, and to a certain extent (in other characters) between the latter and *Platyzosteria*.

The following synopsis will denote the characteristic differences:—

a. Body subfusiform (abdomen wider than thorax). Hindmargin of pronotum flexuose, angles more or less rounded. Supra-anal lamina of male more or less quadrate, hindmargin concave or very slightly rounded. Cerci straight, distinctly exceeding the lamina, shortly acuminate. Legs long, slender.

ANAMESIA, *gen. nov.*

a.a. Body elliptical. Hindmargin of pronotum straight, angles acute. Supra-anal lamina of male transverse, hindmargin straight. Cerci lanceolate, scarcely exceeding the lamina. Legs short, more or less incrassated.

POLYZOSTERIA, *Burm.*

ANAMESIA LAMBII, *spec. nov.*

Reddish-brown, dorsal surface rough with large, shallow impressed dots, shining. Head brown, ocelliform spots small, indistinct, transversely oval; angles of clypeus pale-brownish, antennæ ferruginous. Pronotum with irregular, broad, low corrugations; hind angles rounded, distinctly elongated. Abdominal segments with coarse impressed dots; angles subacute, not produced; hindmargins of first to fifth segments more or less yellow, of sixth and seventh segment entirely so, eighth with rotundately-produced lobes. Underside and legs reddish to piceous-brown, concolorous. Supra-anal lamina of female subtruncate, margins rounded, serrate; hindmargin yellowish. Cerci with parallel sides, shortly and acutely acuminate, pale-brown.

			Seven Females.
Length of body	...	...	29-33 mm.
Length of pronotum	...	...	7- 9 "
Width of pronotum	...	...	14-16 "
Width of abdomen	...	...	18-22 "

Habitat.—Innaminka, Central Australia. S.A. Museum.

The specimens were presented by Mr. W. Lamb, who has at various times enriched the Museum collection with numerous objects of interest procured in a locality which is almost inaccessible for collectors in general, and in grateful acknowledgment the species is named after the donor.

ANAMESIA EASTII, *spec. nov.*

Ochraceous; dorsal surface with large, shallow, rather distant impressed dots, which are dark-brown; shining. Head black above; face variegated paler, a pale ochreous band between the eyes and the sides of the face; antennæ reddish, base blackish. Pronotum pale, with very few dark dots; lateral margin broad, slightly incurved; disk with indistinct elevations and depressions; hindmargin much less flexuose than that of the meso- and meta-notum, both of the latter black at the base in the middle. Abdominal segments narrowly black at the base, dusky along the hindmargin, more or less yellow in the middle, with numerous red or dark round dots scarcely impressed; angles not rounded, those of segments six and seven slightly and acutely produced. Supra-anal lamina of male quadrangular, angles acute, hindmargin broadly emarginate; of female broad, rounded, slightly truncate, and serrate. Cerci slender, scarcely exceeding the lamina, yellow. Subgenital lamina of male quadrate, deeply emarginate, styles long, slender. Underside ferruginous; coxæ pale, striped, with dark red, femora and tibiæ dark purplish.

		Male.	Female.
Length of body	... ..	29 mm.	31 mm.
Length of pronotum	... ..	9 "	9 "
Width of pronotum	... ..	16 "	18 "
Width of abdomen	... ..	18 "	23 "

Habitat.—Central Australia. S.A. Museum.

The specimens were collected by Mr. J. J. East, after whom the species has been named, while accompanying Mr. Tietkens in 1888 in his exploring tour.

ANAMESIA LINDSAYI, *spec. nov.*

Reddish-brown. Head brown; ocelliform spots, upper and lower margin of labrum, cheeks, and palpi pale ferruginous, antennæ dusky ferruginous. Pronotum almost smooth, shining, with small, distant punctures; fore and lateral margins very narrowly yellow, hindmargin only yellow in the middle; disk with large rather irregular corrugations, the most notable being a transverse ridge posteriorly, and followed by a deep depression extending into the mesonotum. Meso- and meta-notum similar, hindmargins broadly dark, slightly bordered behind with yellow. Abdominal segments shining, hindmargins of segments, one to five, broadly dark, with a row of small impressed dots; segments six and seven concolorous, rather rough, angles subrotundate, not produced. Supra-anal lamina of male flat, quadrilateral, subrectangular, much shorter than wide, hindmargin slightly convex, sides and base blackish, a lenticular space in disk ferruginous; of the female subquadrangular, arched, dark brown, concolorous, indistinctly serrate.* Legs wholly yellowish ochreous, spines alone dark. Abdomen ventrally dark reddish brown, concolorous. Subgenital lamina of male transverse, hindmargin straight, scarcely emarginate; styles slender, exceeding the lamina, red, apex acute, black. Cerci pale reddish, carinate.

		Male.	Female.
Length of body	... ..	21 mm.	26 mm.
Length of pronotum	... ..	5 "	7 "
Width of pronotum	... ..	12 "	14 "
Width of abdomen	... ..	14 "	16 "

Habitat.—Fraser Range, South-western Australia. S.A. Museum.

This species is named after Mr. W. Lindsay, the leader of the late Elder Exploring Expedition, and was collected by Mr. R. Helms in May, 1892, who mentions in a note attached that the natives call it "Kumbumberi." The insects, one male and female, resemble *A. Lambii*, but are much smaller, less rugose, and differently marked.

ANAMESIA FRENCHII, *spec. nov.*

Dark chestnut, margin yellow all round, inner limb scalloped ; texture coarse. Head with vertex and face reddish brown, a broad band between the antennæ, cheeks and mouth-parts yellowish, antennæ pale reddish. Pronotum rugulose, finely wrinkled, with distant impressed dots ; angles rounded, hindmargin rather convex. Meso- and meta-notum similar, angles produced, hindmargin narrowly dark brown. Abdomen rugulose, angles minutely produced, segments with transverse wrinkles and irregular impressed dots ; hindmargin of segment six reddish brown ; lateral lobes of segment eight large, rotundate, yellow. Underside dark chestnut, legs ochreous yellow. Supra-anal lamina broad, quadrilateral, angles obtuse, rough, blackish, with a yellowish transverse band in middle. Cerci lanceolate, longer than lamina, yellow. Subgenital lamina of male transverse, hindmargin straight, styles pale, scarcely longer, apex black, inserted at the base.

	Male.			
Length of body	28 mm.
Length of pronotum	7 "
Width of pronotum	15 "
Width of abdomen	16 "

Habitat.—North Queensland (S.A. Museum). The handsome specimen was presented by C. French, Esq., F.L.S., the enthusiastic and zealous State Entomologist of Victoria, and has been named in his honour.

POLYZOSTERIA, *Burm.*

Handb. II., 482, 1839 ; *Brunner*, Syt., 203, 1865. *Periplaneta*, Erichson, Wieg. Arch. VIII., 247, 1847. Walk., Brit., Mus. Cat., 152, 1868.

Body broadly oval to elliptical, convex above. Pronotum semi-circular, straight behind, angles acute. Elytra none, wings none. Legs short, rather stout. Tarsi with first joint as long as the two following ones together. Supra-anal lamina of male transverse, straight behind. Cerci smooth, depressed, lanceolate, usually distinctly longer than supra-anal lamina.

The species of the genus are all diurnal in habit so far as known. The greater number inhabit Australia, a few extending to the Malay Archipelago, Mexico, and West Indies. Of the 22 species described by Brunner only four are extra-Australian. Of the 50 recorded by Walker several have been transferred by me to other genera, and many more may also possibly belong elsewhere. Brunner's subgenus *Platyzosteria* I have ventured to raise to full generic rank and added some other new genera, from all of which *Polyzosteria*, as limited by me, differs widely in form and habits.

POLYZOSTERIA LIMBATA, *Burm.* (*Br.*, *Syst.*, 205, fig. 23).

"Body broadly elliptical, blackish, scarcely bronzy. Margin all round very narrowly incrassated, golden yellow, except the foremargin of pronotum. Pronotum with two impressed dots in the disk. Legs uniformly reddish or piceous.

		Male.	Female.
Length of body	...	38 mm.	39 mm.
Length of pronotum	...	11 "	12 "
Width of pronotum	...	21 "	22 "

Habitat.—New South Wales ("Very common," *Brunner*). Walker records a *P. limbata*, *Charp.*, from Europe (= *Loboptera limbata* ?), *P. limbata*, *Burm.*, and *P. limbata*, *Walker*, from "Australia," on pp. 152, 154, and 167 of the British Museum Catalogue ; the last is possibly the larva of the second.

POLYZOSTERIA OBSCUROVIRIDIS, *spec. nov.*

Elongate elliptical, *dark metallic greenish*, margin all round narrowly yellow. Head with *two minute ocelliform spots* in front, antennae pale yellow, basal joints dark. Pronotum cucullate in front, finely rugulose laterally and studded with irregular rows of large raised tubercles ; disk nearly smooth medially, laterally with ridges and shallow depressions. Meso- and metanotum, also abdominal segments similar, but less distinctly rugose ; hind angles acutely produced. Legs brown above, also in front and the longitudinal half of the underside, remainder pale yellowish ; tarsal joints pale at the apex and beneath. Pectus and coxæ pale, varied with brown. Ventral segments with a trigonal metallic green spot on each submarginally, those of the abdomen joined by a broad brown band, or a fine line alternately, the penultimate segment piceous. Cerci very flat, obtuse, yellow. Subgenital plate piceous, inner margin of valvules pale.

				Female.
Length of body	...	...	...	43 mm.
Length of pronotum	...	...	...	12 "
Width of pronotum	...	...	...	24 "
Width of abdomen	...	...	...	23 "

Habitat.—Gawler Range, South Australia (S.A. Museum).

A single female was captured in 1884 by Mr. Andrews, one of the Museum collectors. It differs from *P. limbata* by the absence of the two impressed dots on the pronotum, the texture of the dorsal integument, the bicolourous legs, &c., beside size and outline of body.

POLYZOSTERIA IRIDICOLOR, *sp. nov.*

Broadly oval. Face, dorsum, stripes of coxæ and the sub-

marginal spots of the ventral segments dark green and coppery iridescent. Antennæ, palpi, narrow margins and the concave hindborder of the dorsal segments dirty yellowish. Body above finely rugulose, near median line with low, irregular, oblique ridge; median line indistinct. Last ventral segment and subgenital valvules transversely wrinkled, deep brown. Supra-anal lamina arched, scarcely incised.

				Female.
Length of body	...	...	...	42 mm.
Length of pronotum	...	...	...	12 "
Width of pronotum	...	...	...	27 "
Width of abdomen	...	...	...	28 "

Habitat.—Gawler Range, South Australia (*Andrews*, Jan., 1884, in S.A. Museum).

The characters chiefly relied on are the great width of the body, the distinctive texture of the dorsal integument, and the narrow, highly arched supra-anal lamina.

POLYZOSTERIA MACULATA, *Brunner* (Syst., 206).

"Elongate elliptical, much depressed, bronzy. Pronotum about the middle of disk golden tinted. Meso- and meta-notum spotted with gold on the foremargins. Coxæ pale yellow, streaked with purplish bronze. Femora, tibiæ, and tarsi with bronzy purple rings. Abdomen of male narrow, of female ovate, ventral segments pale yellow in the disk. Subgenital lamina of male pale yellow.

		Male.	Female.
Length of body	...	40 mm.	38 mm.
Length of pronotum	...	12·5 "	12 "
Width of pronotum	...	21 "	19 "

Habitat.—Western Australia."

POLYZOSTERIA ÆNEA, *Burm.*

Handbk., II., 483; *Br.*, Syst., 207.

"Elongate elliptical, greenish bronze. Thoracic segments beneath blackish bronze. Legs reddish brown, spines yellow, apex red. Abdomen with dorsal segments shining at the base, ventral with the hindmargin pale yellow. Subgenital lamina of male bronze coloured.

		Male.	Female.
Length of body	...	56 mm.	60 mm.
Length of pronotum	...	12 "	15 "
Width of pronotum	...	28 "	21 "

Habitat.—New South Wales (*Brunner*), New Holland (*Burm.*)"

POLYROSTERIA OCLATA, *spec. nov.*

Uniformly metallic brownish bronze. Dorsum and legs finely rugulose, with numerous larger, distant, obtuse tubercles arranged in three or four irregular rows on each segment, except the last. Antennæ blackish, more than half the length of the body. Pronotum with a small oval, smooth, brightly metallic spot on each side, which is raised and directed obliquely outward anteriorly, behind which is placed a narrow, short, transverse, dark, metallic, green line. Abdomen with distinct, subcircular, bluish-black stigmatic spots. Pectoral segments beneath broadly sulphur-yellow, laterally with a narrow dark margin and dark disk. Legs brown, yellow about the joints; fore femora with crowded short spines, middle and hind femora with longer distant spines. Supra-anal lamina much produced, broad, deeply emarginate. Cerci broad, flat, sub-acuminate, of body-colour above and yellow margin, beneath wholly yellow.

	Female.			
Length of body...	31 mm.
Length of pronotum	9.3 "
Width of pronotum	19 "
Width of abdomen	21 "

Habitat.—Head of South-Western River, Kangaroo Island. S.A. Museum.

A single female was captured by me at the end of February, 1886, although several more were seen. The habit of the species of this genus is entirely diurnal. They hunt solitarily, ascending tall bushes and small trees, where they form conspicuous objects when perched on slender dry twigs, and are visible from considerable distances. When approached, however, they let themselves drop suddenly to the ground and are lost to sight, partly on account of the close agreement of their colouring with that of the ground, and partly through their great nimbleness, which permits them to elude all pursuit usually. They appear to possess no odour. In the specimen of this species the left one of the cerci is only about half as long as the right, although otherwise perfect.

POLYZOSTERIA PUBESCENS, *spec. nov.*

Blackish, partly slightly bronzed. Dorsal surface finely wrinkled, with larger, low, obtuse ridges and tubercles, forming three indistinct rows on each side, besides other rugosities, especially on the thoracic segments, and the whole covered more or less by a dense pubescence of short whitish hairs. Head dark greyish iridescent, punctate, with some yellowish lines or other markings; ocelliform spots indistinctly green or bronze. Mouth

parts and palpi brown varied with yellowish; antennæ pale yellow, basal joints dark brown. Pronotum highly arched in front, foremargin bi-sinuate, narrowly pale yellow, disk rough with several low oblique ridges, hindmargin slightly convex, bordered very narrowly pale yellow, more or less invaded or interrupted by raised, shiningly black striæ, as in all the succeeding segments; lateral margin much incrassated, very narrowly black. Meso- and meta-notum with a prominent oblique ridge midway between margin and middle on each side; median line nearly obsolete. Pectoral segments beneath pale yellow, with numerous dark dots and sinuous lines, margin narrowly pale yellow, and a wider submarginal brown stripe. Coxæ brown, bordered and varied with pale-yellow. Femora brown in front and laterally, remainder yellow. Tibiæ wholly brown, spines pale, with dark tips. Ventral segments of abdomen with pale margins, and broad metallic-green submarginal band; disk of the first four yellow, with one or two brown transverse lines, last two or three wholly dark-brown or black, except the hindmargin. Supra-anal lamina of male subquadrate, scarcely emarginate, narrowly bordered with yellow, and covered with short hair. Subgenital lamina of male black, bordered yellow; styles (also cerci) wholly yellow.

	Male.	Female.	Larvæ.
Length of body ...	30-34 mm.	40 mm.	14-25 mm.
Length of pronotum	10-11 "	11.5 "	4- 9 "
Width of pronotum	20-24 "	25 "	12-22 "
Width of abdomen...	20-22 "	28 "	12-18 "

Habitat.—About the Head of the Great Australian Bight (female, *R. Tate*); Fraser Range, S. Western Australia (*Elder Exploriny Expedition*). S.A. Museum.

The species appears to be unique on account of the body being covered dorsally by a fine dense pubescence only absent along portions of the median regions and the summit of the larger rugosities; in the larval stages it is much less developed than in the adult, or quite absent. The larvæ are also distinguished by the greater distinctness of the black streaks across the pale border of the hindmargins, and the underside being much darker.

POLYZOSTERIA PATULA, *Walker* (Brit. Mus. Cat., 157).

Broadly elliptical, dull metallic-green; lateral margin of thoracic segments very broad, dull-yellowish; hindmargins of all segments more or less interrupted, dull-yellowish. Dorsal surface finely and irregularly wrinkled, with some larger, rather-deeply impressed excavations on the thoracic segments, the broad margin of these being deeply and distantly punctured. Head of body-

colour, mouth-parts, and area around the bases of the antennæ pale-yellowish; antennæ pale, basal joints darker. Pronotum convex in front, much arched, very narrowly pale-bordered, lateral margin incurved, very narrowly bordered with black exteriorly, disk subtriangularly dark, with a broad semilunar impression in front, and a subtrigonal pit on each side behind; also some smaller lateral impressions; hindmargin rather convex. Abdomen with lateral margins narrowly and uninterruptedly pale, the yellow spots of the hindmargins of segments forming seven interrupted longitudinal bands; hind angles of penultimate segments considerably produced, acute. Underside wholly pale-yellowish; tibiæ with a metallic-green, femora with a brown stripe. Supra-anal lamina of male large, slightly truncate, margin serrated, concolorous. Cerci lanceolate, pale yellow. Styles slender, rather long, acute.

	Male.	Female (<i>Walker</i>).
Length of body ...	30 mm.	31 mm.
Length of pronotum ...	10 "	—
Width of pronotum...	20 "	—

Habitat.—Northern Territory, S.A. (*J. P. Tepper*, 1873, in S.A. Museum); N. Australia (*Walker*).

This handsome and promiscuously coloured species is here re-described from a male specimen, and agrees fairly well with the description of the female by Walker, who omits (however) many essential characters, which envelopes many of his species in doubt.

POLYZOSTERIA FEMORALIS, *Walker* (Brit. Mus. Cat., 156).

"Blackish aeneous, nearly elliptical, dull. Head metallic green, punctured, sockets of antennæ and foremargin tawny. Palpi testaceous. Antennæ reddish, base piceous. Pronotum nearly semicircular, deeply reflexed laterally and in front, hooded, disk longitudinally rugulose, lateral margin punctured, hindmargin slightly convex, tuberculate. Meso- and meta-notum similar. Abdomen tuberculate, ventrally metallic green, disk piceous, coxæ metallic green, margins testaceous; femora piceous; tibiæ and tarsi pale testaceous. Supra-anal lamina entire, slightly keeled. Cerci short, testaceous. Styles red.

Length of body (male and female) ... 25–27 mm.

Habitat.—West Australia."

POLYZOSTERIA FIGURATA, *Walker* (ibid, 157).

"Ovate, greenish black, dull, densely dotted. Angles of thoracic segments acutely produced. Pronotum rugulose, fore and lateral margins testaceous, much reflected; hindmargin tuberculate. Legs pale testaceous, femora black. Abdomen

with numerous irregular testaceous dots, ventrally with two rows of pale dots. Supra-anal lamina entire. Cerci short, testaceous. Styles black, apex testaceous.

Length of body (female) ... 18-21 mm.

Habitat.—West Australia."

POLYZOSTERIA INVISA, *Walker* (ibid, 162).

"Elliptical, black, dull, extremely thickly and minutely punctured; beneath metallic green, smooth, more coarsely punctured. Pronotum truncate in front, sides scarcely reflexed, hindmargin slightly undulating. Hind angles of meso- and meta-notum rectangular. Abdomen with a row of impressions on each side, fifth and sixth segment slightly gibbous in the middle, with an impression on each side. Coxæ bordered testaceous. Supra-anal lamina truncate, margins yellow. Cerci fusiform, border and underside yellow. Styles yellow.

Length of body (male) ... 30 mm.

Habitat.—Australia."

POLYZOSTERIA MITCHELLI, *Angas* (S. Austr., Ill., plate 48, fig. 1).

Broadly to elongate oval, finely wrinkled, dull greyish-blue to greenish-brown; beneath almost uniformly whitish to yellow. Head pale, with a black band uniting the eyes, and continued downwards, the mouth (sometimes reduced or almost obsolete), two dark stripes down the face, often united at the upper end, sometimes joined to the transverse band, or wholly absent. Antennæ of male blackish; of female usually yellow. Pronotum more or less arched in front, semicircular (male) or elliptical (female), lateral margin slightly incrassated, broad, flat; disk with a wider or narrower oblique yellow submarginal stripe, between this and the middle a similar, much narrower and shorter one, and a slight impression or two near the anterior extremity of the latter; hindmargin straight (male) or slightly curved (female), narrowly yellow, hindangles rounded. Meso- and meta-notum similar, hindangles slightly produced, subacute, the inner spots sometimes abbreviated, and with a small brown centre. Abdomen without pale lateral margin (excepting the supra-anal lamina), the inner or submarginal yellow spots continued to, and joining, the pale margin of the lamina (in some varieties contiguous and broad, as those from Eyre's Sandpatch, Eucla, Ooldea; in others much contracted and short as those from Sedan, Fraser Range, or only present to the second or fourth segment); hindmargin pale yellow, equally wide throughout, or wider in the middle, and bordered brownish, as the examples from Ooldea. Supra-anal lamina of male truncate, more or less

angular, shorter than the subgenital; of female much narrower, much arched, slightly emarginate. Cerci lanceolate, blackish blue, apex yellow, exceeding the lamina. Subgenital lamina of male broad, rounded, slightly emarginate; styles rather long, slender, acute. Valvules of female much incrassated. Femora with two dark-brown lines, knees brown, spines small and few. Tibiæ sky-blue to white, spines black, each placed in a round black spot.

	Male.		Female.		Larvæ.
Length of body ...	30	mm.	30-40	mm.	18 -28 mm
Length of pronotum	9	"	10	"	5.5- 8 "
Width of pronotum	18-22	"	18-23	"	13 -18 "
Width of abdomen...	18	"	21-24	"	12 -15 "

Habitat.—Sedan (*F. Rothe*), about the Head of the Great Australian Bight (*Tate*): South Australia. Eyre's Sandpacth, near Eucla (*Mrs. Graham*), Fraser Range, Victoria Desert: Western Australia (*R. Helms*, Elder Exploring Expedition). S.A. Museum. R. Murray Plain (*Angas*).

This is the most gaudy coloured of all Australian Blatteriæ I have seen, and its adult form is well figured by Angas. The lively colours ornamenting it during life soon fade, and become dull after death, the bright blue changing to whitish or dusky greenish-brown. The markings appear to denote several local varieties, and are most distinct and brightest in the larvæ, as well as the ground-colour. The egg-case is dark-brown, smooth, with a very high obliquely serrated dorsal ridge, the immature specimen in the collection showing 12 teeth so far as exposed. I observed the insects first about October in 1859, in the vicinity of Burra, running and hunting about on the ground, and sheltering themselves when pursued in the dense rigid tufts of *Lepidosperma* and *Xerotes*, from whence they could only be dislodged with considerable difficulty.

The description is drawn up from some 20 odd specimens. Angas attached the name to the figure, but the species appears not to have been diagnosed.

POLYZOSTERIA BAGOTI, *spec. nov.*

Broadly oval, dull green, rugose with irregular, low tubercles, margins all round, also the hindmargins of all segments, narrowly dull yellow, with dark dots or transverse striæ. Head iridescent to the bases of the antennæ, beyond shining-brown; antennæ brownish-yellowish, about half the length of the body, fourth basal joint longest. Pronotum arched in front, and the fore-margin slightly concave, very broad, somewhat convex behind. Meso- and meta-notum much broader laterally than in the middle, hindangles produced, subrotundate. Thorax longer than ab-

domen, ventrally its margin very broad, pale-yellowish, with numerous flexuose black lines and black dots. Legs and abdomen beneath brownish, varied with blackish bands, patches, and lines. Supra-anal lamina of male broad, short, distinctly emarginate. Cerci broad, ovate, scarcely longer than lamina. Subgenital lamina of male pale, subquadrate, entire; styles lanceolate, almost as long as the cerci.

				Male.
Length of body	...	...	14	16.5 mm.
Length of thorax	...	...	9	10 "
Length of abdomen	...	...	6.5	7.5 "
Length of pronotum	...	...	4.5	5 "
Width of pronotum	...	...	13	13.5 "
Width of abdomen...	...	...	12	13 "

Habitat.—Port Augusta.

Two males of this small but remarkable species were presented to the S.A. Museum by Mr. C. M. Bagot, who captured them. Besides the colour, the shortness of the abdomen and the almost microscopical smallness of the femoral spines are unusual.

POLYZOSTERIA REFLEXA, *Brunner* (Syst., 208).

(*P. femoralis*, Walker!).

"Elliptical in front, semiorbicular behind, bronze-coloured. Body scabrous above, verrucose. Pronotum with the fore and lateral margins broad and acutely reflexed, golden-yellow exteriorly. Femora red, tibiae yellow, with black spines. Ventral segments of abdomen dark-brown, concolorous, bronzed.

				Male.	Female.
Length of body	...	...	25	mm.	30 mm.
Length of pronotum	...	...	9	"	11 "
Width of pronotum	...	...	15	"	18 "

Habitat.—Western Australia."

There are four specimens in the collection of the S.A. Museum (locality unrecorded) which agree fairly with the general character denoted in Brunner's and Walker's descriptions, but neither is precise enough to settle the point. I append, therefore, a fuller one based on my specimens, supplementing the former.

Metallic green (male), dull blackish (female), or pale yellowish (larvæ), margins narrowly yellowish; dorsal surface finely scabrous with scattered, elevated, smooth, shining, pale brown or yellowish tubercles and ridges, the latter existing chiefly on the pronotum, less on the meso- and meta-notum, forming various patterns difficult to describe. The abdominal segments have a row of tubercles along the hindmargin and one or more in the middle, the bases in the larvæ being marked with a narrow black or metallic green band. The hindmargins of the male are pale, of the female dark,

the tips of the tubercles black in both sexes. The supra-anal lamina of the male is broad, subquadrate, the hindmargin slightly concave ; of the female rounded and entire. Cerci very short, rather broad, yellow. Coxæ and femora of female reddish brown, concolorous ; coxæ of the male metallic green, femora and tibiæ brown with golden borders.

	Male.	Female.	Larvæ.
Length of body ...	22 mm.	25 mm.	15 mm.

POLYZOSTERIA NOBILIS, *Brunner* (ibid, 209).

"Rather small, oblong. Bronze-coloured, scabrous verrucose. Pronotum in front and laterally reflexed, external margin black. Legs wholly brownish red. Ventral segments of abdomen testaceous, base brownish bronze.

	Male.	Female.
Length of body ...	26 mm.	30 mm.
Length of pronotum ...	8.5 "	9 "
Width of pronotum ...	13.5 "	15 "

Habitat.—Western Australia."

POLYZOSTERIA SUBNOBILIS, *spec. nov.*

Elongate oval. Very dark bronze above. Head bright bronze, deeply impressed, dotted, with a yellow stripe on each side. Pronotum with a broad reflexed margin in front and laterally, finely and irregularly wrinkled, arched in front and with an acute point ; disk deeply sculptured, with a rather deep sinuous transverse furrow anteriorly, the extremities of which (and some other dots) bright metallic bluish green ; hindmargin straight, angles produced, acute. Meso- and meta-notum similar in texture, nearly equally wide. Abdomen finely punctured, segments one to six with a wider or narrower, smooth, band at the base on each side, acute at each end, and separated or scarcely joined in the middle, in segment seven the band is broadest and contiguous ; two penultimate segments laterally much produced, acute. Supra-anal lamina truncate, base broad, hindmargin much contracted, sides straight. Cerci dark-brown, stout, apex pale. Pectus with very broad, deep metallic green margin, disk pale yellowish, with a lateral triangular blackish green patch on meso- and meta-sternum. Coxæ pale yellowish, with one or two metallic green stripes at the base. Femora brown, or greenish, with few, short, pale spines. Tibiæ blackish brown ; spines pale yellowish, tips black. Tarsi blackish above, brownish below, pulvilli large. Ventral segments of abdomen pale yellowish, stigmatic spots black, a narrow green band at the base, hindmargin narrowly greenish, with some dark dots ; last segment deeply emarginate below the cerci, brown, except margin, also the valvules.

				Female.
Length of body	...	...	...	25 mm.
Length of pronotum	...	...	...	6 "
Width of pronotum	...	...	...	13 "

Habitat.—Karatta (near mouth of Stunsailboom River), south-west coast of Kangaroo Island. S.A. Museum.

This species apparently resembles the preceding, but independent of smaller size, the pale coxæ and the smooth semilunar band of the dorsal segments induce me to consider it of specific rank, the above being such conspicuous characters, that Brunner would certainly not have overlooked or failed to record them if they had been present in his specimens. The insects hunt on Eucalyptus shrubs, in bright, hot sunshine, and are very rapid in their movements.

POLYZOSTERIA SUBVERRUCOSA, *White* (Grey's Journal, 2nd. Exp. II., 467; Brit. Mus. Cat.; 155).

"Apterous, oval, thorax in front semicircular, shrouding the head; posterior angles sharp, rounded behind, the frontal edge bent slightly back, and yellowish; the upper surface brown, rather obscure, the surface irregularly raised; below deep shining pitchy brown. Abdomen yellowish, above sprinkled with dark-brown, the edges of each segment with several small wartlike prominences, the two first segments being also shagreened at the sides; beneath pitchy brown, segments at the base black, with green reflections; the femora are pitchy brown, the tibiæ pale yellowish, with black spines; the tarsi of a deep yellow; head dark brown, the trophi and a narrow line on the cheeks yellowish; antennæ somewhat ferruginous. A large apterous species.

Habitat.—King George's Sound, West Australia (*Capt. G. Grey*)."

I have not yet seen the species, of which the above is the unabridged original description, but it appears to belong to this genus without doubt.

The following species, except one, are all described by Saussure in the "*Revue et Magazine de Zoologie*," October, 1864, and are recorded from "Australia" (most likely the coasts of Eastern Australia). Although inserted here, they may all or the greater number have to be removed to *Platyzosteria*.

POLYZOSTERIA BICOLOR, *Saussure* (Rev. Zool., XVI., 307, Australia.

POLYZOSTERIA PULCHELLA, *Sauss.* (ibid, 308), Australia.

" BIGLUMIS, *Sauss.* (ibid, 305), Australia.

" CONSOBRINA, *Sauss.* (ibid, 306), Australia.

" ANALIS, *Sauss.* (ibid, 305), Australia.

" (ZONIOPLOCA) ALUTACEA, *Stål.* (Rech. Syst. Blatt.

in R. Svenska Vetenskap Academicus Handl., Stockholm, Bihang II., No. 13).

Habitat.—Australia.

POLYZOSTERIA SEDILLOTI, *Borm.* (Faune Orth. d'Iles Hawai).

“ VARIOLOSA, *Borm.* (ibid).

Habitat.—New Caledonia.

The last two species were published by A. de Bormans in the “*Annali del Museo Civico di Storia Naturali de Genova*, vol. XVIII., 1883, but I have not seen the descriptions.

PLATYZOSTERIA, *Brunner* (Syst., 204).

Body elongate oval, flat, rather thick; integument more or less leathery (not rigid) during life. Supra-anal lamina of male quadrate or subquadrate, angular or rounded, truncate or concave behind; of female subtriangular or rotundate, emarginate, colour mostly black or brown. Habit more or less nocturnal.

PLATYZOSTERIA MELANARIA, *Erichson* (Wieg. Arch., VIII., 247; *Br.*, Syst., 210).

“Shiningly black. Antennæ and tarsi blackish, coxæ with red margins posteriorly. Supra-anal lamina in both sexes triangularly rotundate, emarginate, serrate, and ciliate.

	Male.	Female.
Length of body ...	29 mm.	33 mm.
Length of pronotum ...	8 “	8.5 “
Width of pronotum ...	11.5 “	12 “

Habitat.—New South Wales; Tasmania.”

The only species before me which fairly agrees with the above (scanty) description, and which I therefore refer to it, exhibits the following differences or additional characters. Lateral margins of thoracic segments, also the legs, more or less deeply brown, pulvilli whitish. Antennæ long, slender, pale brownish or rarely blackish, base surrounded by a circular white area. Abdominal segments with the hind angles acutely produced, lateral margin of the last two finely serrated. Supra-anal lamina of male broad, rotundate, slightly emarginate, scarcely serrate; of female narrow, longer than wide, deeply emarginate, and the lateral margin conspicuously serrate. Cerci of male lanceolate, a little longer than the lamina, black, apex pale; of female much shorter. Subgenital lamina of male quadrate, styles prominent, slender, acute.

	Male.	Female.
Length of body ...	32–38 mm.	29–38 mm.
Length of pronotum	7–8 “	7–8 “
Width of pronotum...	12–15 “	12–15 “

Habitat.—Adelaide, Gilbert River, Sedan, Kangaroo Island : South Australia ; Lillimur, S.W. Victoria. S.A. Museum, 13 specimens.

PLATYZOSTERIA ARMATA, *spec. nov.*

Deep shining brown, finely impressed punctate. Head, antennæ, and legs reddish brown, labrum and palpi black, apex pale, ocelliform spots small, subtrigonal. Pronotum with shallow depressions forming a faint, equal-sided, triangular pit behind. Abdomen with hind angles of segments *very acutely produced as spines*, lateral margin of last segment conspicuously dentate ; ventral segments scabrous-rugose at the margin, black ; disk smooth, finely punctate, varied with reddish brown. Supra-anal lamina of male triangular, margin straight, entire, deeply and narrowly incised at the apex, the *lobes forming long acute spines*, with a small spine externally at the base ; of the female with the margin somewhat rounded, prominently dentate, apex emarginate, the *lobes forming short broad spines*. Cerci obliquely lanceolate, base broad, apex acute, pale. Subgenital lamina of male quadrate, emarginate, scabrous, pale-yellowish at the base ; styles long, acute, spine-like ; subgenital plate of female acutely triangular, very scabrous, black.

	Male.	Female.
Length of body ...	36 mm.	32-35 mm.
Length of pronotum ...	7 "	8 "
Width of pronotum ...	14 "	14-15 "
Width of mesonotum ...	17 "	16-17 "
Width of abdomen ...	19 "	17-18 "

Habitat.—Fraser Range, Western Australia (*R. Helms*, Elder Exploring Expedition, October, 1891). S.A. Museum.

This large and remarkable species is easily recognisable by the spine-like lateral elongations of the abdominal segments and the spine-like lobes of the supra-anal lamina.

PLATYZOSTERIA RUFOFUSCA, *spec. nov.*

Reddish-brown, coxæ and femora paler reddish, tarsi yellowish. ochraceous. Surface laterally fine scabrous, disk almost smooth. Thoracic segments, with the hind segments much rounded. Abdomen with hind angles shortly produced, sharply angular, lateral margin of last segment slightly and distantly serrate, hind angles of last segments much produced, broad, acute ; ventral margin blackish-brown, rather scabrous, disk nearly smooth, reddish to piceous. Supra-anal lamina of female as wide as long, rounded, shortly dentate, not or scarcely emarginate, narrowly keeled. Subgenital valvules black, nearly smooth, subtriangular, obtuse.

				Female.
Length of body ...	...	...	...	32 mm.
Length of pronotum ...	...	...	...	8 "
Width of pronotum ...	...	...	...	13 "
Width of mesonotum ...	...	...	...	16 "
Width of abdomen ...	...	...	...	17 "

Habitat.—Gilbert River, S. Australia (*L. Molineux*, May, 1887). S.A. Museum.

This species resembles the preceding in stature and colour, but is much smoother, the hindangles of the abdominal segments much less produced, and the lamina of quite a different form.

PLATYZOSTERIA (*Peripl.*) ATRATA, *Erichson* (Wieg. Arch., VIII., 247; *Br.*, Syst., 219).

"Black, shining. Antennæ, margin of pronotum, tibiæ at the apex and the tarsi red, coxæ posteriorly with a yellow border.

			Male.	Female.
Length of body ...	...	...	17 mm.	23 mm.
Length of pronotum ...	...	...	5 "	6.5 "
Width of pronotum ...	...	...	9 "	9.5 "

Habitat.—New South Wales; Tasmania."

PLATYZOSTERIA (*Periplaneta*) ATERRIMA, *Erichs.* (*ibid.*).

"Deep black, shining, much depressed. Antennæ ferruginous. Supra-anal lamina of male with hindmargin straight. 'Resembles the preceding species, but differs in dimension' (*Brunner*).

				Male.
Length of body ...	...	...	...	12.5 mm.
Length of pronotum ...	...	...	...	4 "
Width of pronotum ...	...	...	...	6 "

Habitat.—Tasmania."

PLATYZOSTERIA PUNCTATA, *Brunner* (Syst., 211).

"Small, slender, deep black. Body wholly covered with impressed distant spots. Abdomen with the last segments and the lamina scabrous.

				Male.
Length of body ...	...	...	...	12.2 mm.
Length of pronotum ...	...	...	...	3 "
Width of pronotum ...	...	...	...	4.8 "

Habitat.—Eyre's Sandpatch, near Eucla, Western Australia (*Mrs. Graham*); S.A. Museum. New South Wales (*Brunner*).

The single male from the former locality, which I refer to this species, has lost the antennæ, but agrees well in dimensions, &c., with the description. It is, however, less dotted, the

scabrous part more extended, dull black above and below, and the mouth parts (trophi) and legs deep chestnut-brown.

PLATYZOSTERIA PSEUDATRATA, *spec. nov.*

Deep black, shining. Thoracic segments with distant impressed dots. Hindangles of mesonotum slightly, of metanotum considerably, produced, rounded; of the abdominal segments, especially the hindmost, acutely produced, hindmargins finely tuberculate. Legs with the coxæ black, narrowly bordered with yellow; trochanters and femora chestnut-brown; tibiæ and tarsi black, the latter white below. Supra-anal lamina of male subquadrate, dentate, deeply and roundedly emarginate. Cerci wholly black, slightly longer than the lamina. Ventral abdominal segments shining deep-black. Subgenital lamina of male with hindmargin straight, entire, black; styles black.

	Male.			
Length of body...	23 mm.
Length of pronotum	6.5 "
Width of pronotum	12 "
Width of abdomen	14 "

Habitat.—Central Australia (from the collection of the late Fraser S. Crawford). S.A. Museum.

The species appears to resemble *Periplaneta fortipes*, Walker, but differs in the distantly punctured thorax, &c., and from *P. atrata*, Er., in the absence of the red colour of the legs, &c.

PLATYZOSTERIA ALBOMARGINATA, *Br.* (Syst. 212).

"Black. Antennæ blackish at the lower third, remainder ferruginous. Thoracic segments with white margins. Legs and supra-anal lamina reddish.

	Male. (larvæ?)			
Length of body	18 mm.
Length of pronotum	5 "
Width of pronotum	6.5 "

Habitat.—Sydney, New South Wales."

There are one male and two female specimens, undoubtedly adults, in the collection of the S.A. Museum, which I am inclined to refer to this species, but the above description is too meagre for sure identification; a more detailed description is therefore given below, and the varietal name *brunnea* adopted. If the characters should be proved sufficient to separate the two, the latter name might become the specific term.

P. ALBOMARGINATA, Var. BRUNNEA, var. nov.

Black, varied with deep brown in the disk. Antennæ pale ferruginous, basal part black. Pronotum with foremargin brown,

lateral margin (as well as that of meso- and meta-notum) white or pale yellow above and below, narrowly bordered exteriorly with black, very finely rugulose. Wingless. Coxæ and femora blackish brown, tibiæ and tarsi red. Abdomen smooth, lateral margin (incl. of lamina) reddish brown; in the male submarginal ridgelike incrassated, hindangles acutely produced, spinelike (especially of the hindmost segments), dentate; in the female scarcely incrassated, hindangles much less produced, lateral margin of last segment finely carinate, entire. Supra-anal lamina of male narrow, subtrigonal, apex keeled and emarginate with two large spines; of female more rounded, slightly dentate towards the apex, deeply and roundly emarginate. Cerci of male narrow, subterete, much shorter than the lamina, and scarcely exceeding the lateral spines; of female lanceolate, and a little longer. Valvules imperfectly free.

	Male.	Female.
Length of body ...	23 mm.	25-28 mm.
Length of pronotum ...	6 "	6-7 "
Width of pronotum ...	10 "	10-12 "
Width of abdomen ...	12.5 "	12-13 "

It is with some diffidence that I insert this species here, as it resembles my genus *Drymaplaneta* very much in aspect, notably the pale margin of the thoracic segments, but the cerci being short in this species, and long in all the species of the above genus, induced me to retain it here provisionally. In fact, it seems one of those confusing intermediary forms that bother the systematist and delight the biologist.

Habitat.—Gilbert River (*L. Molineux*); Ravine des Casoars, Kangaroo Island (*Tepper*); S. Australia; Barrow Range, Central Australia (*R. Helms*, Elder Exploring Expedition). S. A. Museum.

PLATYZOSTERIA SUBAPTERA, *Brunner* (Syst., 212).

"Black, rather dull, depressed (female; male convex). Elytra lobiform, only partly free. Penultimate segments of abdomen and supra-anal lamina rugose, margins of both serrulate. Subgenital lamina of male transverse, margin straight, angles acute, styles inserted beside the angles." (Subgenital valvules of female distinctly emarginate at the apex.)

	Male.	Female.
Length of body ...	16-19 mm.	17-21 mm.
Length of pronotum	4-5 "	4-5 "
Width of pronotum	6.5-8 "	7-8.5 "
Width of abdomen	—	9-11 "

Habitat.—Blakiston, Victor Harbour, Monarto: South Australia (S.A. Museum); Port Adelaide and Melbourne (*Brunner*).

PLATYZOSTERIA AVOCAENSIS, *spec. nov.*

Chestnut-brown, shining, with minute impressed dots over the whole dorsal surface, interspersed distantly with larger ones on the thoracic segments. Antennæ blackish at the base, gradually paler towards the apex. Legs dark-brown, long; tibiæ and tarsi black, claws reddish; femora with numerous, rather-long spines. Abdomen smooth in the disk, margins and the two last segments rugulose, hindmargins of all regularly and minutely tuberculate; hindangles, especially of the hinder segments, produced into acute spines, those of the last denticulate laterally. Supra-anal lamina of female very rugose, serrate, and denticulate, slightly emarginate. Cerci lanceolate, much shorter than lamina, apex very acute.

	Female.			
Length of body	25 mm.
Length of pronotum	7 "
Width of pronotum	13 "
Width of abdomen	14 "

Habitat.—Avoca, Riverina District of New South Wales.

A female, bearing the egg-capsule, was presented to the S.A. Museum by Miss Cudmore, of the above locality, in May, 1888. The capsule is reddish-brown, 10 mm. long, and 4 mm. in vertical diameter; the ridge has 23 very small teeth, and laterally 10 semi-cylindrical short keels adjacent to the suture, but separate from it, longest in the middle, and only indicated at the ends. The mesonotum exhibits a curious abnormality, viz., a considerable abbreviation of the left margin for the whole width of the segment, showing several rugosities, and at the anterior angle a short free lobe projecting from the underside of the pronotum. The opposite side is quite normal.

PLATYZOSTERIA SCABRA, *Brunner* (Syst., 213).

"Deep black, rather broad and connex. Abdomen dorsally with elevated dots and streaks, the last segments laterally serrate.

	Male.		Female.	
Length of body	27 mm.	...	31 mm.
Length of pronotum	8 "	...	8 "
Width of pronotum	13 "	...	14 "

Habitat.—Sydney, New South Wales."

PLATYZOSTERIA SCABRELLA, *spec. nov.*

Dull deep-black, lateral margins narrow deep-red, rarely wholly black. Antennæ with the long basal joints black, remainder yellow. Pronotum with more or less numerous, rather large, impressed dots. Meso- and meta-notum rugose with irregular raised asperities. Abdomen asperous with small tubercles along the hind-

margins of segments, and one or more irregular intermediate rows, hindangles produced as acute flat spines, the last segment laterally dentate, and with very large spines. Underside of body and legs wholly black, rarely slightly lurid. Coxæ narrowly bordered with yellow. Ventral segments of abdomen from nearly smooth to scabrous. Supra-anal lamina of male rugose, hindmargin entirely ciliate; of female rounded, dentate, emarginate. Cerci lanceolate, flat, black, apex pale. Subgenital lamina of male pale reddish or brown, hindmargin concave, lateral angles much and acutely produced. Styles inserted laterally near the base.

	Male.	Female.	Larvæ.
Length of body ...	19-23 mm.	19-22 mm.	14-18 mm.
Length of pronotum...	5-6 "	5-6.5 "	3-4.5 "
Width of pronotum ...	8-10 "	9-10 "	6-8 "
Width of abdomen ...	10-12 "	12-14 "	8-9 "

Habitat.—Adelaide, Belair, Largs Bay, and Ravine des Casoars, Kangaroo Island; South Australia. S.A. Museum.

This species resembles the preceding species, but is much smaller, and the margin is distinctly paler. It is one of the commoner kinds, there being 20 specimens in the collection (eight males, nine females, and three larvæ), most of which were captured by myself from March to June inclusively. At this time they are rather numerous, living concealed by day in cool places, such as dead wood and other vegetable debris, with which they are occasionally brought into towns, but avoid houses, and soon disappear. Their odour on handling is strong, and very disagreeable. In some specimens the texture is much smoother than in others, while in rare cases, the paler markings are almost entirely absent, excepting the antennæ and the tips of the cerci.

PLATYZOSTERIA CASTANEA, *Brunner* (System, 214).

"Brownish-chestnut. Body convex in the middle. Elytra lobiform. Supra-anal lamina of male slightly *impressed* in the middle, *angles acute*; of the female serrulate, sub-emarginate.

	Male and Female.		
Length of body	21 mm.
Length of pronotum	6 "
Width of pronotum	9 "

Habitat.—New South Wales."

PLATYZOSTERIA PSEUDOCASTANEA, *spec. nov.*

Resembling the preceding. Legs uniformly reddish-brown, tarsi paler. Supra-anal lamina of male very scabrous, middle arched, margin subrotundate, dentate, emarginate, reddish, the

teeth red ; of the female flat, nearly entire. Cerci shorter than the lamina, apex red. Styles minute.

	Male.	Female.	Larvæ.
Length of body ...	17 mm.	17 mm.	14 - 15 mm.
Length of pronotum	4 "	5 "	3 - 3.3 "
Width of pronotum	7.5 "	8 "	6.5 - 7 "
Width of abdomen	9 "	11 "	8 - 8.5 "

Habitat.—Tanunda and Ardrossan, South Australia. S. A. Museum.

A pair of adults and of larvæ were collected by me in October and November at the above localities. The differences indicated seem to preclude the inclusion of this in the preceding species.

PLATYZOSTERIA TRUNCATA, *Brunner* (System, 217).

"Testaceous-chestnut. Pronotum oblong, reddish-chestnut, lateral margin broadly testaceous. Elytra corneous, subquadrate, sutural margins touching, anal vein impressed. Wings none. Legs testaceous. Abdomen bordered testaceous.

				Female.
Length of body ...	...	...	...	17 mm.
Length of elytra ...	...	...	...	4.5 "
Length of pronotum ...	...	...	...	5 "
Width of pronotum ...	...	...	...	6 "

Habitat.—New South Wales ; New Zealand."

PLATYZOSTERIA NOVA-ZEALANDIÆ, *Brunner* (Syst., 218).

"Reddish-black. Body depressed, oblong, with very fine impressed dots, scabrous. Antennæ as long as body, base black, reddish towards apex. Elytra of both sexes rudimentary, lanceolate, obliquely truncate behind. Supra-anal lamina of the male impressed in the middle, reddish ciliate ; of female emarginate. Cerci shorter.

				Male and Female.
Length of body ...	...	...	...	19 mm.
Length of pronotum ...	...	...	...	6 "
Width of pronotum ...	...	...	...	8 "

Habitat. — Williamstown and Tanunda, South Australia (*Tepper*). S.A. Museum. Auckland, New Zealand (*Brunner*).

The specimens before me, which I have referred to this species for the present, exhibit the following variations of details :—The thoracic segments bordered reddish-brown, disk much darker, abdomen black, scabrous. Legs bright-brownish-red, tarsi paler. Supra-anal lamina of male finely dentate, emarginate ; of the female more distinctly dentate, slightly emarginate. Cerci red at the apex. Styles of male rather long, red. Somewhat smaller in size.

PLATYZOSTERIA TRIFASCIATA, *spec. nov.*

Deep-brown or black, margin mostly paler, minutely scabrous with rather large depressed dots over thoracic segments. Pronotum semicircular, hindmargins of all thoracic segments broadly pale straw-coloured or yellow. Elytra none. Legs and underside black, coxæ bordered yellow. Abdomen concolorous, posterior angles more or less acutely produced, hindangles of segment eight, and the cerci red. Supra-anal lamina of male truncate, black, hindmargin densely ciliate, with tan-coloured hairs, angles with a slender spine; of female sub-semicircular, margins dentate. Subgenital lamina of male subquadrate, slightly exceeding the supra-anal, hindmargin concave, serrate, angles spinose, styles slender, acute, as long as lamina, black; subgenital plate of female short, subtriangular margin entire.

	Male.	Female.
Length of body ...	20-22 mm.	21 -23 mm.
Length of pronotum	5- 6 "	5.5- 6.5 "
Width of pronotum	9-11 "	10 -12 "

Habitat.—Northern Territory of South Australia.

The examples of this species were presented to the S.A. Museum by Hon. Dr. S. J. Magarey, 1886, and consist of eight males and seven females. All are remarkable for the uniformity of their character. The three pale bands render the species easy of recognition.

PLATYZOSTERIA BALTEATA, *spec. nov.*

Small. Shiningly black. Face with minute yellow, ocelliform spots. Antennæ and palpi reddish-brown. Pronotum with small, distant, impressed spots, margins pale yellow. Meso- and meta-notum similar, pale border of hindmargin abruptly terminated by lobes of elytra, wider laterally, narrower in the middle. Elytra lobiform, apex rounded, exterior margin pale. Abdomen with hindangles of segments more or less acutely produced, lateral margins very narrowly brown, hindmargin pale yellow, bordered with brown anteriorly; ventral segments and coxæ bordered white. Legs reddish-brown, tarsi whitish beneath. Supra-anal lamina subconical, finely serrate and slightly emarginate. Cerci black, apex red.

			Female.
Length of body ...	...	...	12 -15 mm.
Length of pronotum	...	...	3.5 "
Width of pronotum	...	...	6 "

Habitat.—Callington, South Australia. S.A. Museum.

Three females were captured by me in January under decaying vegetable debris. The species appears to resemble Walker's *P. polyzona*, but differs in being much smaller and having lobiform

elytra. It also resembles certain larval stages of *Apolyta* spp. in the type of markings, but otherwise widely removed, and is the smallest probably of the family.

PLATYZOSTERIA LATIZONA, spec. nov.

Reddish-brown above and beneath, lateral and hindmargins of all segments broadly ochreous-yellow. Head reddish; ocelliform spots minute; lower margin of clypeus, palpi, and antennæ yellowish. Thoracic segments rugose, with coarse impressed dots. Legs pale yellowish, middle and hind coxæ with a black patch at the base; tibiæ from brownish to blackish-brown. Abdomen scabrous, with numerous small tubercles, hindangles acute, those of the last segments produced as acute trigonal spines. Supra-anal lamina of male broad, quadrate, angular, hindmargin concave; of female tapering, hindmargin truncate, angles rounded, slightly emarginate, and with three minute teeth on each side of the notch, in both sexes yellowish, base black. Cerci lanceolate, blackish, apex pale. Subgenital lamina of male blackish, with paler median line and hindmargin, subquadrate, lateral and hindmargins concave, angles produced as acute spines; styles slender, black. Subgenital plate of female brown, apex black, acute.

	Male.	Female.
Length of body ...	17-21 mm.	22 mm.
Length of pronotum ...	5 "	6 "
Width of pronotum ...	9 "	11 "

Habitat.—Mount Bryan East, South Australia (*Thos. Best*). S.A. Museum.

This is a very handsome species and differs from the following not only in colour, but also in the rugosity of the thoracic segments, &c. It may come near to *P. zonata*, Walker, at least in colour.

PLATYZOSTERIA ARDROSSANENSIS, spec. nov.

Dull ferruginous. Head and the underside of the body wholly pale straw-coloured; antennæ dark-brownish, basal joints pale, ciliate. Pronotum thickly studded in the disk with minute reddish tubercles in a pale ground, all margins pale straw-coloured, lateral margins incrassated, a black streak between it and the disk. Meso- and meta-notum similar, base of former mostly narrowly black. Legs pale; tibiæ reddish, with red spines; tarsi more or less black above. Abdominal segments banded, base blackish, middle pale, with red dots, hindmargin dull greyish-olive, shading into a narrow whitish border-line in segments one and five; hindmargin of six and seven broadly yellow, base more or less broadly black, middle band nearly obsolete; hindangles acutely produced posteriorly. Supra-anal lamina quadrate, angles, rounded, base black, hindmargin nearly straight,

finely ciliate; of female conical, rounded, slightly emarginate, varied with black. Cerci of both sexes linear, apex shortly acuminate, bristly. Subgenital lamina of male subquadrate, angular, broadly emarginate, angles blunt; styles slender, with black tips. Subgenital plate of female triangular, concolorous.

	Male.	Female.	Larvæ.
Length of body	15 mm.	18 mm.	14 mm.
Length of pronotum	4 "	6 "	4-5 "
Width of pronotum	7 "	9 "	7-8 "

Habitat.—Ardrossan (Yorke's Peninsula), South Australia. S.A. Museum.

A pair of adults and two female larvæ were captured by me towards the end of November under stones; a young, very pale male larvæ from Nalpa, Lower River Murray (presented by Dr. J. E. Stirling), appears to belong also to this species, although somewhat different.

PLATYZOSTERIA LIGATA, *Brunner* (Syst., 220).

Cosmozosteria ligata, Stål, Rech. Blatt., 1877.

Reddish-chestnut, wholly bordered with pale-yellow. Wingless. Abdomen of male dilated, depressed, hindangles obtuse. Supra-anal lamina of male transverse, hindmargin straight, entire. Subgenital lamina produced, in the middle triangularly emarginate, lobes acute angular, lateral margins sinuate; styles very long, inserted at base.

	Male.
Length of body	18 mm.
Length of pronotum	6 "
Width of pronotum	9.5 "

Habitat.—Port Curtis, Queensland."

Not having seen Stål's definition of the genus, I prefer recording the species under Brunner's name. It may perhaps become advisable to unite all the conspicuously-banded species in a separate genus.

PLATYZOSTERIA (*Polyzosteria*) BIFIDA, *Saussure*.

Mel. Orth., in Memoires Soc. Phys. de Genève, 1873.

Habitat.—Queensland

Description not seen.

PLATYZOSTERIA LATERALIS, *Walker* (Brit. Mus. Cat., 154).

"Black, convex, elliptical, very thinly punctured, lateral margins dark-red; beneath piceous, shining, and thinly punctured. Head piceous; antennæ black, stout. Pronotum with an ochraceous point in front, and a broad, oblique streak laterally and anteriorly. Meso- and meta-notum with an ochraceous spot

on each side near foremargin, hindangles hardly elongated. Legs red, rather stout, coxæ bordered with yellow. Abdomen tuberculate above, laterally with ochraceous spots. Supra-anal lamina slightly emarginate. Cerci lanceolate, slender, apex red. Styles distinct. Female larger than male.

Length of body (male and female) 15-23 mm.

Habitat.—Australia.”

Probably belonging to *Periplaneta*.

The descriptions of this and following species of Walker are abbreviated, and the details re-arranged.

PLATYZOSTERIA FERRUGINEA, *Walker* (ibid, 158).

“Ferruginous, convex, elliptical, extremely minutely punctured, red beneath. Pronotum nearly semicircular, with some large marginal punctures, and an oblique yellow streak on each side anteriorly. Meso- and meta-notum thinly and largely punctured, the former with a testaceous dot on each side near foreborder; latter testaceous laterally, hindangles slightly produced. Legs red, posterior coxæ bordered black and pale yellow. Abdomen slightly tuberculate, lateral margins dark-reddish. Supra-anal lamina emarginate. Cerci lanceolate, moderately long. Styles distinct.

Length of body (male) 20 mm.

Habitat.—Australia.

PLATYZOSTERIA ZONATA, *Walker* (ibid, 159).

“Piceous, elongate-oval, convex, very thickly and finely punctured. Pronotum with a luteous border, widest opposite the hindangles. Meso- and meta-notum with hindmargin luteous, widest laterally, hindangles not produced. Legs stout, coxæ bordered yellow. Abdomen wider than thorax, roughly punctured, Supra-anal lamina truncate, angles acute. Cerci stout, wholly red, or only at the apex. Styles rather long.

Length of body (female) 18-23 mm.

Habitat.—Port Essington, North Australia.

PLATYZOSTERIA POLYZONA, *Walker* (ibid, 159).

Piceous, broad-oval, convex, smooth, shining. Head tawny, with a piceous spot on the face; antennæ tawny at the base. Pronotum with a narrow ochraceous border, and a few punctures. Meso- and meta-notum, also abdominal segments, ochraceous bordered laterally and behind. Abdomen piceous beneath at the apex. Supra-anal lamina of female entire (?). Cerci, short, broad, lanceolate.

Length of body (female) 27-29 mm.

Habitat.—Western Australia.

PLATYZOSTERIA QUADRIFASCIA, *Walker* (ibid, 160).

Deep black, oval or fusiform, very convex, very thickly and minutely punctured, smooth, shining. Head thinly punctured. Pronotum with fore and hindmargins ochraceous. Meso- and meta-notum with hindmargins ochraceous, angles scarcely produced. Coxæ bordered with yellow. Abdomen roughly punctured, hindmargins of segments six and seven slightly and acutely produced. Supra-anal lamina serrate. Cerci lanceolate

Length of body (male and female) ... 19–23 mm.

Habitat.—Australia.

PLATYZOSTERIA PECTORALIS, *Walker* (ibid, 160).

“Black, elongate oval, convex, shining, very thinly punctured. Head with a luteous dot adjoining the sockets of the antennæ. Pronotum irregularly bordered luteous in front and behind. Meso- and meta-notum with luteous hindmargins widest laterally, angles hardly elongate. Pectoral segments bordered pale yellow. Abdomen piceous, thickly punctured. Supra-anal lamina truncate, with a subapical spot on each side. Cerci tawny, moderately long. Styles well developed.

Length of body (male) 20 mm.

Habitat.—Victoria River, North Australia.

PLATYZOSTERIA TARSALIS, *Walker* (ibid, 162).

“Black, elongate oval, convex, smooth, shining. Head with ocelliform spots, sockets of antennæ and frontal margin tawny; antennæ dark red, basal part black. Pronotum very thinly punctured in the disk, also with an indistinct, scutcheon-shaped figure, sides minutely tuberculate. Meso- and meta-notum similar, angles not produced. Elytra slightly indicated. Coxæ and femora mostly dark red, the former bordered with yellow, tarsi tawny towards the tips. Abdominal segments laterally tuberculate, smooth in the disk, segments six and seven wholly tuberculate. Supra-anal lamina tuberculate, hindmargin emarginate, serrate, beneath dark red in the disk. Cerci nearly linear, rather slender. Subgenital lamina tawny.

Length of body (female) 26–29 mm.

Habitat.—New South Wales.

PLATYZOSTERIA (*Chalcolampra*) CUPREA, *Sauss.*

Mel. Orth. V., fig. 3; Brit. Mus. Cat., 143.

Habitat.—King George's Sound and Swan River, West Australia.

Description not seen

LEPTOZOSTERIA, *gen. nov.*

Etymology:—*Leptos*=thin; *zostron*, a girdle.

Body very flat and thin, elongate. Integument soft. Supra-anal lamina of male triangular, terminating in an acute apical spine. Colour pale, with dark bands.

The form and termination of the supra-anal lamina appear to be quite exceptional among the Blattariæ. Similarly unusual in the related genera is the pale ground-colour with the bands dark, instead of the reverse, which is the usual coloration. I have therefore considered it advisable to establish the genus provisionally for the reception of the single species until further material offers a better base for its final disposition.

LEPTOZOSTERIA PRIMA, *spec. nov.*

Elongate oval, yellowish. Head dark dusk-brown, ocelliform spots yellowish, very small. Pronotum elliptical in front, disk with a black quadrilateral figure, widest anteriorly, extending along the hindmargin, and including a yellowish four-sided space. Meso- and meta-notum similar, with a very narrow brown marginal line, hindangles rounded, scarcely produced. Elytra none. Legs brown, very flat, coxæ bordered pale. Abdomen above with the hindmargins of segments one to six black or dark-brown, segment seven paler, angles produced, acute, lateral margin of the last two segments finely serrate; ventral segments piceous, laterally dark, disk paler. Supra-anal lamina dark-brown. Cerci slightly longer than lamina, gradually acuminate. Subgenital lamina of male with the styles stout at the base, remainder slender, acute.

					Male.
Length of body ...	...	...	...	...	29 mm.
Length of thorax ...	...	...	...	...	15 "
Length of abdomen ...	...	...	...	...	14 "
Length of pronotum ...	...	...	...	...	8 "
Width of pronotum ...	...	...	...	...	12 "
Width of abdomen ...	...	...	...	...	15 "

Habitat.—Cordilho Downs, Central Australia. S.A. Museum. This fine specimen was captured and presented by Mr. F. Archer in August, 1889.

PSEUDOLAMPRA, *gen. nov.*

Body fusiform (narrow in front, broad behind), very convex above, more or less rugose, with impressed dots. Pronotum elliptical, hindmargin concavo-convex or nearly straight. Elytra and wings none. Legs long, slender; tarsi elongated as in *Polyzosteria*. Supra-anal lamina of male transverse, almost

straight, densely ciliate. Cerci ciliate, more or less depressed, sublanceolate, distinctly longer than the lamina.

The species comprised in this genus resemble the females of *Epilampra* very much in shape and colour, and also in the more or less united valvules of the females, but differ very much in the two sexes being without a trace of elytra or wings. Nearest to them in general resemblance come some of the conspicuously-banded species of *Platyzoisteria*, like *P. balteata*, *Ardrossanensis*, &c. I have therefore placed them here provisionally, though perhaps a better position could be found. The systematic position of this new genus is indicated in the synopsis, post p.

The generic name is an allusion to the resemblance mentioned above. The three species possess a type of colouring peculiar to them, and characterised by the double pair of light and dark bands of the abdominal segments.

PSEUDOLAMPRA PUNCTATA, *spec. nov.*

Yellow to ochraceous. Head brown; ocelliform spots, base of clypeus, basal joints of antennæ and the palpi reddish-yellow; antennæ slender, ciliate, blackish, much longer than half the body. Pronotum slightly truncate in front, laterally with numerous small, deeply-impressed dark dots; disk with numerous brownish-red, irregular spots and streaks arranged in a circular area, and disposed radially; hindmargin broadly dark-olive, much wider laterally and extending to the sides, or more or less displaced by the yellow ground-colour. Meso- and meta-notum similar, hindangles moderately produced, obtuse. Legs and underside reddish-brown, coxæ bordered pale-yellow, tibæ and tarsi mostly dark-brown. Abdomen yellowish above, with numerous red impressed dots, angles obtuse, not produced; hindmargin very broadly dusky olive, sometimes absent in segments six and seven; ventral segments two to five with a broad greenish-olive band bordered very narrowly with yellow anteriorly, segment seven concolorous, segments seven to eight with the hindmargin broadly blackish. Supra-anal lamina and cerci of both sexes ochre-yellow. Subgenital lamina of male subrotundate, broad, hindmargin broadly yellow, entire; styles ochre-yellow; valvules deep reddish-brown.

	Male.	Female.	Larvæ.
Length of body ...	27 mm.	30 mm.	23 mm.
Length of pronotum	7 "	8 "	6 "
Width of pronotum...	12 "	12 "	10-11"
Width of abdomen ...	14 "	15 "	13 "

Habitat.—Between Victoria Spring and the Fraser Range (*R. Helms*, Elder Exploring Expedition), West Australia. S. A. Museum; an adult and a larval pair were obtained in October, 1891.

The larvæ are much paler than the adults, and the markings less defined, excepting the minute dark dots.

PSEUDOLAMPRA ROTHEI, spec. nov.

Ochreous-yellow. Head pale, with a dark dot between the antennæ and another on the clypeus; antennæ blackish, basal joints pale. Pronotum nearly smooth, fore and lateral margins broad, not dotted, disk circular, with a small, undotted, almost central patch from which radiate black, variously shaped and curved streaks and spots, which are unsymmetrically arranged; hindmargin dusky olive-green, very broad laterally, often replaced partially by the yellow body colour. Meso- and meta-notum similar, the black spots of the disk either separated in two curves, or more or less irregularly confluent, sometimes greatly preponderating over the ground-colour; hindmargin greenish-olive, very broad laterally, sometimes occupying the whole side. Underside black. Coxæ black in the young, partly brown in the adult form, all bordered with white; femora and tibiæ yellowish-brown, tarsi darker. Abdominal segments all banded, base narrowly black, hindmargin greenish-olive to pale-yellow, between them a narrow ochreous band near the base with a row of small black dots and a broader dark band; ventral segments, except the last two, wholly black, base of penultimate black, remainder ochreous yellow, unmarked, all bordered pale. Supra-anal lamina of male quadrilateral, narrower behind, ochreous-yellow. Cerci deficient in all specimens seen. Subgenital lamina of male ochreous, concolorous (plates of female black at the base); styles stout, short, acute.

	Male.	Female.	Larvæ.
Length of body ...	23 mm.	23 mm.	15-17 mm.
Length of pronotum...	5 "	6.3 "	3- 5 "
Width of pronotum ...	8.5 "	10 "	6- 8 "
Width of abdomen ...	12 "	13.5 "	8-11.5 "

Habitat.—Sedan (Murray Scrub), South Australia.

The species has been named after Mr. F. Rothe, who collected and presented the samples to the S.A. Museum, besides many other interesting specimens. One pair of adults, and two pairs of larvæ were examined.

PSEUDOLAMPRA ORNATA, spec. nov.

Shiningly deep-black above and beneath. Head black; labrum, palpi and a triangular mark below each eye pale brownish-yellow; antennæ dull blackish, basal joints pale brownish-yellow. Pronotum finely wrinkled with a few small, distinct, impressed dots laterally; all margins narrowly yellow. Meso- and meta-notum similar, hindangles scarcely produced. Legs pale reddish

coxæ bordered white. Abdomen with lateral and hindmargins of all segments narrowly yellow, segments two to six with a narrow anterior band dotted black, and irregular borders yellow, interrupted (at least in the middle); ventral segments bordered narrowly white, last one concavely brownish-yellow behind; valvules of female black. Supra-anal lamina narrower behind, angles rounded, emarginate, base narrowly black, remainder yellow. Cerci slender, subconical, much shorter than the lamina.

				Female.
Length of body ...	...	...	...	23 mm.
Length of pronotum ...	...	...	...	7 "
Width of pronotum ..	...	...	...	10 "
Width of abdomen ...	...	...	...	13 "

Habitat.—South Australia (precise locality not recorded). S.A. Museum.

KNEPHASIA, gen. nov.

Etymology :—*Knephas*=dusky, referring to colour.

Elongate-oval to subfusiform, very convex, very *rugose*, with minute *raised tubercles*. Pronotum subsemicircular, lateral margins *incrassated*, angles *acute*, hindmargin quite straight. Elytra or wings none. Legs short, rather stout, femora thickly spined, tarsi very slender. Supra-anal lamina of male rounded, very slightly emarginate, glabrous. Cerci lanceolate, ciliate, slightly exceeding the lamina. Subgenital lamina of male broad, transverse, slightly emarginate, ciliate; of the female valvate. Monotypic.

In outline the genus resembles Brunner's figure of *Derocalymma dispar*, but is even removed from the division to which this belongs on account of its spinose femora. It is easily distinguished from all others by its peculiar dorsal texture, narrow, elongate form, short abdomen, and the form of the supra-anal lamina of the male. Both sexes being wingless, and the female possessing valvules, removes the genus from the *Epilampridæ*.

The following synopsis represents roughly the relationships of this and some other new genera to certain others of prior date :—

1. Femora spined.
2. Abdomen of female with last ventral segment valve-like. Wingless or elytra perfect, lobiform or absent.

PERIPLANETIDÆ.

3. Body very convex, elongate or fusiform. Wingless (resembling *Epilampra*).

4. Body with impressed dots. PSEUDOLAMPRA, *gen. nov.*

4.4. Body with raised tubercles. KNEPHASIA, *gen. nov.*

3.3. Body more or less flat, broadly or elongate oval.

4. Cerci as long, slightly longer or shorter than the lamina.

a. Elytra none. Integument rigid.

b. Legs short, stout.

Polyzosteria, Burm.

bb. Legs long, slender.

Anamesia, gen. nov.

aa. Elytra lobiform or more rarely absent. Integument softer.

c. Black or brown, bordered or banded pale, convex.

Platyzosteria, Brunner.

cc. Pale, bordered or banded dark, flat.

Leptozosteria, gen. nov.

4.4. Cerci much longer than lamina. Elytra and wings present, rarely absent.

PERIPLANATA, Burm.

KNEPHASIA MEDILINEA, *spec. nov.*

Dusky-ochreous to pale-yellowish, with very numerous, minute, dark tubercles obscuring the ground colour. Head pale yellowish or tawny, with numerous black dots; antennae and palpi very slender, long, pale yellowish, the former finely ciliate. Pronotum reddish tawny, lateral margins narrowly yellow, interiorly bordered by an ill-defined dusky stripe, a black median line from near the hindmargin extending to segment seven, gradually widening hindward. Meso- and meta-notum with hindangles slightly produced. Legs and underside pale-yellowish, with numerous black dots, margins of pectus broadly black. Abdomen short, broad in the female, pale at the base, hindmargins dusky, on each side of the dark median line an ill-defined, interrupted, paler stripe; angles increasingly produced to seventh segment, acute, a black, triangular spot on both penultimate ventral segments. Supra-anal lamina of both sexes concolorous (except the dark tubercles). Cerci of male longer than the lamina; of female shorter, black, apex yellow. Styles of male slender, much longer than the lamina.

	Male.	Female.
Length of body...	15 mm.	15-18 mm.
Length of pronotum ...	4 "	5 "
Length of abdomen ...	7 "	7- 9 "
Width of pronotum ...	7 "	7- 8 "
Width of abdomen ...	8 "	9 "

Habitat.—Sedan, South Australia (*F. Rothe*, three females); Lillimur, N.-W. Victoria (*A. Molineux*, one male); Northern Territory of S.A. (*Hon. Dr. S. J. Magarey*). S.A. Museum.

All the specimens are remarkably uniform, except that the male is much paler and brighter in colour, notwithstanding the wide distribution of the species.

PERIPLANETA, *Burmeister*.

Handb. II., 502; *Br.*, Syst., 221.

"Body oblong, flat above. Pronotum semiorbicular, anteriorly,

rotundate behind. Elytra and wings perfect, rarely abbreviate. Legs long, slender, very spinose. Tarsi compressed laterally, first joint longer than all the following ones together. Supra-anal lamina of male *emarginate* or *lobate*. Cerci pilose, distinctly acuminate, twice as long as the lamina."

Although adopting for the present the genus as defined above, it seems to me that its limits are drawn too far, and that the species possessing only lobiform elytra, that is, such not much exceeding the mesonotum and comparatively short cerci, might advantageously be united under another generic or subgeneric designation.

A. *Elytra abbreviated, wings rudimentary.*

PERIPLANETA ORIENTALIS, Linné.

Fauna Suec. n., 862; *Br.*, Syst., 226.

Blatta, L., 1745, &c.; *Kakerlac*, Serv., Hist. Nat. Orth.; *Stylopyga*, Scdd.

"Brownish-ferruginous to chestnut Elytra of male not attaining the apex of abdomen, truncate; of female slightly exceeding the mesonotum, lateral. Wings shorter than elytra in both sexes. Supra-anal lamina of male transverse, hindmargin membranous; of female compressed, triangularly excised.

	Male.	Female.
Length of body ...	20--23 mm.	19 --23 mm.
Length of elytra ...	12-13·5 "	4·5- 5 "
Length of pronotum	5-- 6·5 "	6 -- 6·5 "
Width of pronotum	7-- 7·5 "	8·5-- 9·5 "

Habitat.—All parts of the inhabited surface of the earth. In the collection of the S.A. Museum are specimens from Adelaide, Jamestown, Northern Territory, and Japan. The young larvæ are brownish-red, the older almost black; hence the name of "Black Beetles."

PERIPLANATA RUFA, *spec. nov.*

Red, smooth, shining. Head pale-reddish, ocelliform spots yellow; base of antennæ and sides of face pale reddish-yellow; mandibles and palpi partly blackish. Antennæ as long as the body, dull ferruginous. Pronotum smooth, very shining, semi-circular, convex. Elytra abbreviated, attaining to the hindmargin of second abdominal segment, very broad, apex rounded, remainder oblique, concave; veins distinct. Coxæ pale; tarsi dilated beneath, forming very thin lamina. Abdomen with the segments angular, six and seven dull dark-brownish, hindmargins of all narrowly rugose, with many minute sulci; lobes of segment eight prominent, triangular. Supra-anal lamina of male entire, rounded. Cerci about three times longer than lamina, acute,

beneath hirsute, Subgenital lamina of male entire, rounded, laterally fringed with fine hairs; styles very short, thick, black, inner side fringed, almost apical.

	Male.			
Length of body	22 mm.
Length of elytra	9 "
Length of pronotum	5 "
Width of pronotum	9 "

Habitat.—Oodnadatta, Central Australia. S.A. Museum.

An officer in the Government employ—Mr. F. Juncken, who has occasionally presented specimens—mentioned in one of his letters that cockroaches proved rather annoying. At my request for specimens, a single male was kindly and obligingly sent, which proved, as I had surmised, to be so different in details that I feel justified in assigning specific rank to it. The species is specially remarkable for the peculiar form of the genital parts, the shape of the elytra, and the lamina-like compressed tarsi, which are very long and closely pectinated beneath to the base of the claws.

PERIPLANETA CONCINNA, *Hagenbach*.

Bijdrag, 1842; *Br.*, Syst., 228.

"Brownish-chestnut; shining. Elytra shorter than abdomen in both sexes, acuminate.

	Male.		Female.
Length of body	12.5 mm.	14 mm.
Length of elytra	9 "	9 "
Length of pronotum	4.5 "	—
Width of pronotum	5.2 "	—

Habitat.—Australia, Java."

PERIPLANETA ROTUNDATA, *Brunner* (Syst., 230).

"Brownish-black, shining. Face spotted with testaceous. Elytra of female corneous, as long as pronotum is wide, rounded.

	Female.			
Length of body...	24 mm.
Length of elytra	10 "
Length of pronotum	8.5 "
Width of pronotum	10 "

Habitat.—Fiji Islands."

B. Wings perfect; as long as, or longer than, abdomen.
a. Pronotum of two colours.

PERIPLANETA AMERICANA, *Linné*.

Syst. Nat., 687; *Br.*, Syst., fig. 24.

Ferruginous. Head black above—pale, with reddish blotches, below the antennæ; latter much longer than the body, pale

ferruginous. Pronotum subrotundate, yellowish testaceous, two large ferruginous spots in the disk with indistinct outline, hind-margin blackish-brown. Elytra of male much exceeding—of female as long as—abdomen. Legs and underside pale, also basal part of abdomen above. Supra-anal lamina of male broad, incised, lobes broad, rounded; of female triangular, deeply and narrowly incised, lobes narrow, apex obtuse. Cerci more than twice as long as lamina, tapering from the base. Styles of male filiform, much exceeding the lamina.

	Male.	Female.
Length of body ...	28–32 mm.	28–31 mm.
Length of elytra ...	28–32 “	26–28 “
Length of pronotum	7·5–8 “	9–10 “
Width of pronotum...	9·5–11 “	11–12 “

Habitat.—Adelaide, South Australia (S. A. Museum), and all continents.

The above description has been drawn up from nine specimens belonging to both sexes, the measurements which are taken from Brunner's work, are considerably exceeded by some.

PERIPLANETA OCULATA, *Walker* (Brit. Mus. Cat. Suppl., 152).

“Piceous, fusiform, shining, whitish beneath. Head whitish, a black band between the eyes; antennæ piceous, tawny towards the base. Pronotum whitish, long, laterally bordered with black very narrowly, a very large piceous patch extending to the straight hindmargin, near latter two round whitish spots. Legs pale yellow, thick, rather short. Wings blackish-brown, not longer than abdomen; elytra coriaceous, corneous towards base, with a whitish costal stripe tapering from the base to three-fourths of the length. Abdomen beneath reddish, laterally whitish.

	Male.	Female.
Length of body	20 mm.
Length of elytra...	20 “

Habitat.—Australia.”

PERIPLANETA AUSTRALASLÆ, *Fabr.*

Syst. Ent., 271; *Br.*, Syst., 233.

“Brownish-ferruginous. Face brown, with a pale trigonal patch or small spot, Pronotum blackish, transversely elliptical, hindmargin nearly straight, intramarginal band sharply defined, humeral streak yellow. Elytra longer than the abdomen.

	Male.	Female.
Length of body ...	... 24 mm.	26 mm.
Length of elytra ...	... 27 “	24 “
Length of pronotum	... 7 “	8 “
With of pronotum...	... 9·5 “	11 “

Habitat.—Madeira, St. Thomas, Columbia (*Burm.*); Batavia (*Brunner*); Sumatra (*de Haan*); Cuba, Brazil, Mexico, Peru, Australia (*Walker*, Brit. Mus. Cat., 324)."

PERIPLANETA LIGATA, *Brunner* (Syst., 237).

"Brownish ferruginous, with the anterior and lateral margin bordered yellow. Legs testaceous, middle tibiæ bordered brownish, hind tibiæ wholly brown. Supra-anal lamina of male quadrate, triplicate; of female much produced, middle subcarinate, hindmargin deeply emarginate, angles acute. Subgenital lamina of male transverse, subemarginate; styles very long.

Male and Female.			
Length of body ...	...	...	25 mm.
Length of elytra...	...	...	22 "
Length of pronotum	...	...	7 "
Width of pronotum	...	...	10 "

Habitat.—Moreton Bay, Port Curtis, Queensland."

PERIPLANETA INCLUSA, *Walker* (Brit. Mus. Cat., 127).

"Blackish, fusiform, smooth, shining, yellow beneath. Head yellow, a piceous band across the face. Pronotum with two yellow bands connected on each side and forming an irregular fusiform ringlet, hinder band much broader and more irregular. Elytra and wings extending a little beyond the abdomen, former semicoriaceous, towards base corneous, blackish, with a yellow, subcostal, lanceolate streak from the base to one-third of length. Wings not paler.

		Male.	Female.
Length of body ...	...	22.5 mm.	24 mm.
Length of elytra ...	...	30 "	25 "

Habitat.—St. Domingo, West India; New Hebrides, Polynesia."

PERIPLANETA CURVIGERA, *Walker* (ibid, 134).

"(Section 6. Sides of pronotum and costa of elytra dilated, hyaline; hindmargin straighter than in section 1. Costa of elytra rounded. Two species.)

Pale-yellow, fusiform, smooth, shining. Head with a black band on the vertex; antennæ piceous, base testaceous, slender. Pronotum much dilated behind, with two black stripes in the disk. Legs short, stout. Wings extending beyond the abdomen; elytra coriaceous, a broad black stripe along the hindmargin extending nearly to the apex; hindwings membranous, pellucid, veins pale.

				Female.
Length of body ...	...	...	...	16 mm.
Length of elytra ...	...	...	...	18 "

Habitat.—Moreton Bay, Queensland."

This species belongs most probably to some other group (*Ichnoptera*?).

PERIPLANETA BIQUADRATA, *Walker* (ibid).

"Pale testaceous, fusiform, flat, shining, nearly smooth. Head with an irregular black band between the eyes; antennæ piceous, base testaceous, as long as the body. Pronotum mostly covered by a large scutcheon-shaped piceous patch, extending to hindmargin, near it including on each side, a large, subquadrate, testaceous spot; hindmargin scarcely rounded. Elytra piceous, membranous, with a pale testaceous costal stripe decreasing in width to apex. Wings piceous, a little larger than elytra, not paler.

Length of body (?)	...	...	...	20 mm.
Length of elytra	...	...	...	24 "

Habitat.—Australia."

b. Pronotum of the same colour as the body, concolorous.

PERIPLANETA PALLIPALPIS, *Serv.*

Hist. nat. 71, n. 7 (*Kakerlac*); *Br.*, Syst., 238.

"Chestnut-coloured, shining. Mouth and palpi pale. Pronotum semi-circular. Elytra exceeding the abdomen, anal area very smooth, all longitudinal veins perspicuous towards the apex.

				Both sexes.
Length of body	...	...	...	21 mm.
Length of pronotum	...	...	...	6.5 "
Width of pronotum	...	...	...	9.5 "

Habitat.—Java, Sumatra (*Serville, de Haan*); Australia (*Brunner*)."

PERIPLANETA APICALIS, *Walker* (Brit. Mus. Cat., 129).

"Testaceous, fusiform, shining, paler beneath. Pronotum with the sides slightly reflexed, curved near hindmargin, which is slightly rounded. Elytra slightly exceeding the wings, both the abdomen; humeral veins forked, longitudinal veins simple, transverse veinlets numerous. Wings pale cinereous, costa, apex and veins testaceous; *triangular area rather large* (?). Abdomen pale-yellowish, apex testaceous (*Walker's Sect.*, 1).

				Female.
Length of body	...	...	...	18 mm.
Length of elytra	...	...	...	22 "

Habitat.—Australia.”

This species belongs probably to the *Chorisoneuridae*.

PERIPLANETA CONVEXA, *Walker* (ibid, Suppl., 152).

“Black, smooth, shining, convex, elliptical. Palpi piceous; antennæ setaceous, much longer than the body. Pronotum shortly conical. Elytra coriaceous, convex, extending a little beyond the body, costa and apex rounded; *covered portion of right one membranous, slightly paler*. Wings resembling membranous part of elytra, slightly longer. *Cerci broad, short*. Female (size not given).

Habitat.—Moreton Bay, Queensland.”

The italicized parts of the description indicate that the species scarcely belongs to this genus.

Of the following species the descriptions have not been available. Walker places the first two with *P. Americana* in his Sect. 1; they will therefore be long-winged forms; the third is possibly synonymous with *Pseudophyllodromia Heydeniana*, Sauss., in fasc. 2 Mem. Soc. Phys. de Genève, 1870.

PERIPLANETA MARGINALIS, *Saussure*.

Rev. Zool., 1864, No. 30; Mel. Orth., 31.

Habitat.—Queensland, Western Australia (*Walker*).

PERIPLANETA SORAR, *Saussure* (ibid, no. 35).

Habitat.—Australia.

PERIPLANETA HEYDENIANA, *Sauss.* (Rev. Zool., 1864, Nov. 29).

Habitat.—West Australia.

c. Elytra lobiform or absent. Body mostly black, concolorous. Cerci not twice as long as lamina. Valvules normal.

Subgenus SYNTOMAPTERA, *miki*,

PERIPLANETA FORTIPES, *Walker* (Brit. Mus. Cat., 137).

“Black, fusiform, shining, very thickly and minutely punctured. Head smooth, sockets of antennæ, labium and palpi piceous; antennæ dark-red, basal part black, as long as the body. Pronotum with a very shallow lateral furrow, hindmargin straight. Elytra absent. Legs stout, reddish-black, tarsi red towards the apex. Abdominal segments six and seven with angles produced, acute. Supra-anal lamina truncate. Cerci long, lanceolate.

Length of body (both sexes) ... 22–27 mm.

Habitat.—West Australia, Tasmania, New Zealand.”

PERIPLANETA INVISA, *Walker* (ibid, 137).

"Resembling *P. fortipes*. Head with reddish labrum. Supra-anal lamina emarginate. Coxæ bordered with yellow.

Length of body (both sexes)... 27-32 mm.

Habitat.—Australia (N.S.W. ?) ; West Australia."

PERIPLANETA GLABRA, *Walker* (ibid, 139).

"Deep black, oval, convex, smooth, shining. Antennæ black. Pronotum rounded laterally, hindmargin straight. Metanotum with angles slightly produced. Elytra triangular, corneous, rudimentary. Legs short. Abdominal segments with the angles successively more elongated, acute. Supra-anal lamina bilobed, lobes tetragonal. Cerci fusiform, flat. Styles long, slender.

Length of body (male) ... 18 mm.

Habitat.—Australia."

There are three female specimens in the collection of the S.A. Museum, which I refer to this species, and from which the following description is drawn up :—

Deep black, narrowly fusiform, very convex and shining, hindmargins of segments narrowly lurid. Head and antennæ black ; ocelliform spots, margins of clypeus and labrum, also palpi, very pale. Thoracic segments laterally narrowly reflexed ; disk polished, with distant impressed dots, hindmargin of metanotum convex. Elytra absent. Underside and legs dark piceous, tarsi and spines brown ; claws pale. Abdominal segments angular, posterior ones produced, acute, hindmargin scabrous, minutely dotted. Supra-anal lamina tapering, deeply emarginate, angles rounded. Cerci nearly twice as long as lamina, lanceolate, thick, acute, black.

				Female.
Length of body	...	...	...	15 mm.
Length of pronotum	...	...	...	4.5 "
Width of pronotum	...	...	...	6 "
Width of abdomen	...	...	...	8 "

Habitat.—Northern Territory of South Australia. S.A. Museum, presented by the Hon. Dr. S. J. Magarey.

PERIPLANETA OBSCURA, *sp. nov.*

Resembling the preceding ; dull black-brown to black. Head, antennæ, and mouth parts reddish. Pronotum smooth, with a few impressed dots. Meso- and meta-notum, also abdomen, thickly and minutely tuberculate. Elytra lobiform, not exceeding the mesonotum. Legs short, stout, hind tibiæ short, entirely deep reddish-brown. Supra-anal lamina compressed, emarginate. Cerci broad, lanceolate, acute.

				Female.
Length of body	...	...	...	14 -15 mm.
Length of pronotum	...	...	...	3.5-4 "
Width of pronotum	...	...	...	6 "

Habitat.—Northern Territory of South Australia. S.A. Museum, presented by the Hon. Dr. S. J. Magarey.

PERIPLANETA SCABRIUSCULA, spec. nov.

Resembling *P. glabra*. Deep piceous to black, shining. Head black; antennæ, labrum, and palpi reddish. Pronotum smooth. Meso- and meta-notum slightly scabrous, with minute acute tubercles. Elytra lobiform in both sexes. Legs red, concolorous; tibiæ long; tarsi pale beneath. Supra-anal lamina of male subangular, deeply grooved in the middle; hindmargin concave, of female much compressed, emarginate. Cerci rather long, deep black, acute, extreme tip red. Subgenital lamina of male quadrilateral, angular, hindmargin concave; styles long, slender, black, apex red.

	Male.	Female.
Length of body	... 12-14 mm.	16 -18 mm.
Length of pronotum...	4- 4.5 "	5 - 6 "
Width of prototum ...	7- 7.5 "	7.5- 8.5 "

Habitat.—Belair (Mount Lofty Range), Port Vincent (Y.P.), Kangaroo Island (larvæ only): South Australia. S.A. Museum.

Some thirteen specimens were compared from the above localities. They were taken in June, living by day under loose bark of Eucalyptus-trees near the ground.

PERIPLANETA PROVISIONALIS, spec. nov.

Resembling the last. Brownish-red, scabrous, shining. Lobes of elytra very narrow. Abdomen brown below. Supra-anal lamina short, deeply and roundly emarginate. Cerci rather short. Valvules black.

				Female.
Length of body	...	...	...	12 mm.
Length of pronotum	...	...	...	4 "
Width of pronotum	...	...	...	6 "

Habitat.—Mount Bryan East. S.A. Museum, presented by Mr. T. Best.

DEROPELTIS, Burm.

Handb. II., 486; *Br.*, System, 240; *Blatta*, Serv.

“Male winged, female wingless. Head partly free above; antennæ thick, longer than the body. Elytra and wings of male doubly exceeding the abdomen, narrowed in the middle, apex acuminate. Femora very slender, spines very short, first joint of tarsi exceeding the following joints. Abdomen of male oblong;

of female broad and round, dorsal segments truncate, scarcely exceeding the ventral, fifth incised in the middle. Supra-anal lamina of male transverse, with an impressed medial line, margin entire; of female triangular, laterally deflexed. Cerci of male longer than lamina, articulate; of female short, inarticulate. Subgenital lamina of male rounded, large, exceeding the supra-anal; styles long.

The genus, as defined by Brunner, is chiefly of South African habitat, one species only being recorded doubtfully from Java. In the British Museum Catalogue, Walker records, p. 231, "*Epilampra irrorata*, Thunb., nov. spec. I., 76; Fabricius, Ent. Syst. II., 8," from Australia in three instances. Referring to Brunner's record of the literature quoted. "*E. irrorata*" is not mentioned at all, but the pages cited quote *Blatta erythrocephala*, Fabr. (Ent. Syst., II., p. 7 and 8), while *B. capensis*, Thunb. (Dissert. Ent., 77) is mentioned as a synonym of the former. Whence Walker obtained the name "*irrorata*" is not apparent, but most likely another synonym for *B. erythrocephalus*, Fabr. As I am not in a position to prove his localities wrong, I insert the genus on his authority.

DEROPELTIS ERYTHROCEPHALUS, Fabr.

Blatta, Fabr.; *Br.*, Syst., 242, fig. 38.

"Brownish-black, dull. Head red; antennæ rather thick, black, apex reddish. Legs ferruginous. Pronotum of male transverse, oval, rounded. Disk triangularly impressed. Elytra longer than wings, brownish-chestnut. Femora with sharp scattered spines. Female black, dull. Abdomen with fifth segment sinuate laterally.

	Male.	Female.
Length of body...	27 mm.	28 mm.
Length of elytra	33 "	—
Length of pronotum	5.2 "	7 "
Width of pronotum	8 "	12.5 "

Habitat.—Cape of Good Hope (authors); Australia (*Walker*)."

d. Elytra lobiform or absent. Valvules of female not, or scarcely free.

DRYMAPLANETA, gen. nov.

Etymology:—*Dryma*, wood; *planeta*, runners.

Body like *Periplaneta*, smooth, shining, margins pale. Antennæ setaceous, as long or longer than the body, ciliate. Elytra lobiform, short, or absent; wings none. Legs rather short; femora and tibiæ more or less densely spinose; tarsi with first joint shorter, or scarcely longer than the following two together. Supra-anal lamina of male moderately broad, more or less con-

cave ; angles rounded ; of female conical or triangular, compressed or flat, more or less deeply incised, angles acute. Cerci lanceolate, flat, acute, from one-half to twice the length of the lamina. Subgenital lamina of male with slender, acute *styles*, *inserted at the apex of the keels*, mostly produced. *Valvules* of female *conjoined*, not or scarcely free, the suture indicated by a furrow or keel separated by furrows from the adjoining membrane.

The genus differs from *Platyzosteria* by the longer cerci of both sexes, and the styles of the males ; from *Periplaneta* by the lobiform elytra, pale margins, &c., and from all by the conjoined valvules of the female. The species frequent woods, never human habitations, unless carried there by accident. Their habits appear to be more or less nocturnal, leaving their hiding-places soon after sunset, or on cloudy days in the late afternoon, when they run about actively on the surface or ascend shrubs and trees in quest of their prey, viz., living insects of all kinds ; and have therefore a claim, so far as ascertained, to rank as highly beneficial generally. Most of them are readily distinguished by the pale margins of the thorax or all round the body.

DRYMAPLANETA COMMUNIS, *spec. nov.*

Elongate oval, black (or lurid when young), smooth, shining. Head and antennæ reddish, space at base of latter and mouth-parts pale-yellowish. Pronotum mostly with a faint dark-red median line, and a pale-yellow, cuneiform lateral stripe on each side, narrow in front, broad behind, bordered outside narrowly with black, and continued along the meso- and meta-notum, occasionally extending to the basal part of the adjoining abdominal segment, and sometimes reappearing in the form of round dots on one or more of the following ones. Elytra rather broad, inner part and apex black, not much exceeding the mesonotum. Underside of body piceous, varied with red. Coxæ broadly white-bordered ; femora and tibiæ paler or darker red ; tarsi pale-reddish. Abdominal segments angular, angles much produced, acute. Supra-anal lamina of male subangular, narrowed behind, angularly and broadly emarginate, ciliate ; of female narrow, triangular, deeply emarginate, apex of lobes rounded. Cerci long. Subgenital lamina of male, like supra-anal, transverse, emarginate, angles rounded ; styles long. Subgenital plate of female subvalvular.

	Male.	Female.
Length of body ...	21-25 mm.	18-20 mm.
Length of elytra ...	4 "	3 "
Length of pronotum	6- 7 "	5- 6 "
Width of pronotum	9-10 "	7- 8 "

Habitat.—Mount Lofty Range, Adelaide, Nairne, Nuriootpa, Ardrossan (Yorke's Peninsula): South Australia. S.A. Museum.

Some ten specimens were examined, varying very slightly, as indicated above. The species differs from *Platyzosteria albomarginata*, Br., only in the form of the supra-anal lamina, greater length of cerci, and brighter colour of the legs; and the latter might probably be included in this genus with advantage. *D. communis*, as implied by the name, is one of the commonest species in the southern part of the province, occurring in the adult stage from June till January, and perhaps more seldom all the year round, but is very shy and active. Its odour is very disagreeable.

DRYMAPLANETA SUBMARGINATA, *spec. nov.*

Dark piceous to chestnut, with the pale-yellowish margin nearly all round. Head of male, with trilobed vertex, and a patch like an hourglass in front reddish-brown, remainder pale-yellowish or whitish; of female concolorous, reddish; palpi whitish, second and third joints equally long, very thick; fourth joint shorter, pale-yellowish; antennæ ferruginous. Pronotum shining, pale margin contiguous in front, or more or less interrupted, a narrow dark-red medial line or broader lurid stripe (sometimes obsolete). Elytra short. Metanotum with the hind-angles considerably produced, rounded. Underside dark chestnut. Legs with the coxæ pale-yellowish, with a blackish stripe; femora and tarsi rather darker; tibiæ reddish to brownish. Abdomen slightly dilated, hindangles of segments much produced, acute, lateral pale stripe interrupted by narrow black and brown hind-margin, reduced to short narrow streaks in segments six and seven. Supra-anal lamina of male quadrilateral, black, hind-margin retuse, slightly ciliate, angles obtuse; of female the hind-margin of segment seven bordered yellowish, lamina narrow, subtriangular, slightly compressed, deeply and triangularly emarginate, sides narrowly yellowish, lobes subacute. Cerci of male nearly twice as long as lamina, brown, concolorous; of female piceous, apex yellowish. Subgenital lamina of male transverse, truncate; styles slender, acute, red, nearly as long as the cerci.

	Male (adults).	Female (larvæ).
Length of body ...	21--23·5 mm.	21 mm.
Length of pronotum	7 “	5 “
Width of pronotum	9--10 “	7 “

Habitat.—South-western part of Kangaroo Island, Blakiston, Mount Lofty Range: South Australia. S.A. Museum.

There is some doubt as to the correct mating of the sexes. A very young larva from the Northern Territory and two others

from the South-East of our province resemble the above females, but may belong to another species.

DRYMAPLANETA OBSCURIPES, spec. nov.

Piceous to black; a broad deep-yellow margin all round, bordered exteriorly very narrowly with black or brown, inner border line jagged; smooth, shining. Head, palpi, and basal joints of antennæ black, a band between the eyes, and the mouth-parts reddish. Pronotum irregularly wrinkled; hindangles of thoracic segments slightly produced, broad, rounded. Elytra wholly obsolete. Underside dark. Coxæ and femora blackish, former bordered with white, tibiæ and tarsi dark reddish-brown. Abdomen more or less lurid to dark red in the disk, bordered with black; angles keeled, produced as distinct spinelets; hindmargin of seventh segment yellow; beneath dark reddish, with a broad black margin. Supra-anal lamina of both sexes subtriangular, deeply and acutely emarginate, lobes of male acute, of female obtuse, black, with two yellow spots. Cerci not twice as long as lamina, apex (male obtuse, female acute) pale. Subgenital lamina of male transverse, truncate; styles short, acute. Valvular plate of female with a broad furrow.

	Male.	Female.	Larva.
Length of body ...	23 mm.	25 mm.	20 mm.
Length of pronotum ...	5 "	5 "	4.5 "
Width of pronotum ...	9 "	9.5 "	8 "

Habitat.—West Coast of South Australia; Fraser Range, West Australia. S. A. Museum.

Only a larva, differing in some details, was collected at the latter place by Mr. R. Helms (Elder Expl. Exped.) on October 12, 1891, the other specimens (one male, two females) were probably collected by Prof. R. Tate at about the head of Great Bight.

DRYMAPLANETA SUBBIFASCIATA, sp. nov.

Piceous, sometimes clouded with deep red, lateral margins broad, yellow, bordered with black, produced transversely along the hindmargins of the pronotum and metanotum, forming bands interrupted in the middle. Body smooth, with very numerous, minute, impressed dots. Vertex and face black, a broad curved band between the antennæ, sides, &c., pale yellow; antennæ pale reddish, palpi very pale. Pronotum and mesonotum with a broad subconical impression, medially and various wrinkles behind. Elytra obsolete. Underside piceous. Coxæ pale-yellowish, a black stripe anteriorly; femora dark-red, with two blackish stripes; tibiæ brown; tarsi paler. Abdomen with hindangles more or less produced, acute; hindmargin of segment

seven narrowly ferruginous, disk pubescent. Supra-anal lamina of female slightly compressed, emarginate, ciliate, lobes rounded. Cerci very long. Subgenital plate with a deep, broad, medial furrow, not free.

	Adult.	Larvæ.
Length of body (female) ...	22 mm.	17-21 mm.
Length of pronotum ...	6 "	5- 5.5 "
Width of pronotum ...	11 "	9- 9.5 "

Habitat.—Northern Territory of South Australia. S.A. Museum.

Of this conspicuously-coloured species one adult and three larval females were presented by the Hon. Dr. S. J. Magarey in 1886.

DRYMAPLANETA SEMICINCTA, Walker.

Periplaneta, Brit. Mus. Cat., 140.

"Black, fusiform, smooth, shining, piceous beneath. Vertex, labrum and palpi yellow; antennæ dark-red. A lateral yellow stripe extending from the foremargin of pronotum to second or third abdominal segment. Pronotum elongate, widening behind, hindmargin straight. Elytra lobiform, luteous, hindmargin black. Legs short, tarsi red towards the tips, or wholly black. Abdomen with angles produced, acute. Supra-anal lamina truncate, angles acute. Cerci long, lanceolate.

Length of body (both sexes) ... 18-20 mm.

Habitat.—Navigator's Isle; Formosa.

DRYMAPLANETA SEXGUTTATA, Walker.

Peripl., *ibid*, 141.

"Black, elliptical, convex, smooth, shining. Sockets of antennæ and labrum piceous; antennæ with a tawny, antemedial, very broad band. Thoracic segments each with a white spot near each hindangle. Pronotum subsemicircular, laterally very minutely punctured. Meso- and meta-notum with the angles slightly elongated. Elytra none. Legs short, thick, coxæ bordered white. Abdominal segments tuberculate, successively more produced, acute; beneath a broad, indeterminate stripe. Supra-anal lamina entire. Styles long.

Length of body (male) ... 13 mm.

Habitat.—Australia (perhaps a young larva)."

DRYMAPLANETA SEMIVITTA, Walker.

Peripl., *ibid*, 143.

"Black, fusiform, smooth, shining. Head with a yellow band in front; labrum yellow; palpi pale yellow. Thoracic segment laterally with a yellow stripe bordered black laterally, inner side

undulating; underside mostly pale-yellow, sides rounded, hind-margin straight. Elytra lobiform. Legs thick, pale yellowish piceous. Supra-anal lamina bidentate.

Length of body (female)... .. 23 mm.

Habitat.—West Australia."

"In vol. II. of Capt. Ph. P. King's Survey of the Coasts of Australia, 1818-1822, page 454, a species is described as *Blatta australis*, McLeay, which may belong to this genus, but the description is wholly inadequate to fix family or genus, and the species will have to remain undeterminate."

II. Femora spineless or rarely the fore femora with a few spines.

A. *Claws with arolia* (except females of Heterogamidæ).

CHORISONEURIDÆ (*Br.*, Syst., 251).

"Head large, free, convex; eyes remote. Pronotum rounded or quadrate. Elytra quite explicate, acuminate; veins distinct, radial vein branching pinnately. Wings either with their anterior part acuminate, or the apical area folding and reflexed; anal area with radiating veins, fanlike. Femora spined at apex only. Abdominal segment with the angles straight or rounded, never produced. Supra-anal lamina of male rounded; of female similar or emarginate. Subgenital lamina of male rounded; styles provided."

There are several genera, mostly extra-Australian, with only a few species in each. They are mostly of very moderate size, and distinguished by the pinnately-branched radial vein of the elytra, and the very large triangular area of the wings, or in one genus, by the wings foldings transversely in the middle. Only two genera appear to occur in Australia.

CHORISONEURA, *Brunner* (System, 255, fig. 26).

"Elytra with the radial and ulnar veins separated. Wings perfect, apical area membranous. Femora unarmed, pilose. Supra-anal area of male scarcely produced; of female much produced, emarginate. Last ventral segment of female much contracted in the middle. Cerci long, slender, filiform in both sexes.

The five species described by Brunner are from Brazil (4), and Mexico (1). The Australian species may possibly justify a new genus for their reception, but the material available is too scanty for a complete diagnosis.

CHORISONEURA HYGROPHOROIDES, *Walker*.

Blatta, Brit. Mus. Cat., 96.

"Black, fusiform, depressed, ferruginous beneath. Head tawny in front, labrum and vertex testaceous. Pronotum

minutely punctured, laterally and posteriorly testaceous, laterally much dilated, hindmargin rounded. Legs short, ferruginous. Elytra smooth, coriaceous, costa rounded, testaceous towards the base, costal area broad. Wings cinereous, hyaline.

					Male.
Length of body	...	...	...	...	5 mm.
Length of elytra	...	...	...	...	5 "

Habitat.—Australia.

The above abridged description of Walker fits very well (as far as it goes) for the insects I refer to this species, but another supplementary description drawn up from the specimens examined may serve to define it better. The meso- and meta-notum of the male nymph, and the elytra of the adult female are reddish-brown, antennæ ferruginous, hirsute, as long as the body. Abdomen dark-brown in the disk; last dorsal segment, supra-anal lamina and cerci of female brownish testaceous, last ventral segment very much produced, subtrigonal, apex obtuse.

			Male.	Female.	Larvæ.
Length of body	...	...	6 mm.	7 mm.	4.5 mm.
Length of elytra	...	...	—	5.5 "	—
Length of pronotum	...	...	1.7 "	1.3 "	1.2 "
Width of pronotum	...	...	3 "	2.5 "	2 "

Habitat.—Mount Pleasant, Kangaroo Island, a doubtful larva from Mount Bryan East; South Australia. S.A. Museum.

CHORISONEURA LOFTYENSIS, *spec. nov.*

Brownish-ferruginous. Head, antennæ, pectus and legs yellowish. Pronotum very broad, much rounded laterally, two blackish transverse bars in the disk before the middle. Elytra of male as long as abdomen, of female shorter; veins raised. Abdomen laterally and medially blackish, with two broad submarginal brownish ferruginous stripes; apex and cerci brownish-ferruginous.

			Male.	Female.	Larvæ.
Length of body	...	...	7 mm.	8 mm.	5-7 mm.
Length of elytra	...	...	5 "	5 "	—
Length of pronotum	...	...	1.6 "	1.7 "	1.3 "
Width of pronotum	...	...	3.3 "	3.6 "	2.7 "

Habitat.—Mount Lofty Ranges, South Australia. S.A. Museum.

The insects are very nimble, and inhabit the narrow spaces under bark and the cracks and fissures of dead timber during the early and hottest months of the year.

CHORISONEURA PECTINATA, *Saussure*.

Mel. Orth., in Mem. Soc. Phys., Genève.

Habitat.—Australia.

ELEUTHERODA, *Brunner* (Syst., 264, fig. 29).

"Silky pilose. Head large. Pronotum semiorbicular in front, truncate behind. Elytra flat, almost rectangular, scarcely slanting, not exceeding the abdomen. Wings twice as long as the elytra, wholly folded back in the middle. Legs slender. Abdomen oblong, convex beneath. Supra-anal lamina of male transverse; of female rounded. Cerci small, base very broad, four-jointed. Subgenital lamina of male small; styles short.

The insects resemble Coleoptera considerably in appearance, and much more so than any other of the Blattariæ, except *Cassidiodes*, from the Philippine Islands, but of different type; the former apparently mimicking certain Tenebrionidæ, the latter resembling our black Paropsinæ.

ELEUTHERODA GALERUCOIDES, *Walker*.

Diploptera, Brit. Mus. Cat., 57.

"Tawny, flat, elliptical, shining, very finely punctured, minutely setulose. Head largely but distantly punctured. Antennæ submoniliform, shorter than body, base black. Pronotum transversely subelliptical, sides much rounded, semi-hyaline, hindmargin straight, disk with two interrupted, much abbreviated, blackish bands. Elytra coriaceous. Wings cinereous, hyaline. Legs moderately long. Abdomen piceous, slightly longer than elytra. Supra-anal lamina deeply concave above, or margin much deflexed, tawny. Cerci long, tawny.

Length of body (female) ... 6 mm.

Habitat.—Tasmania."

PANCHLORIDÆ (*Br.*, Syst., 266).

Head rather thick, partly or wholly covered by pronotum. Pronotum mostly smooth, angular or truncate behind, flat or hooded. Elytra perfectly explicate (except *Oniscosoma*), rounded, without apical area, anal vein impressed, axillary veins very close. Wings rounded in front, apical area not distinct, fan-like explicate, anal area fan-like, ulnar vein pectinate. Femora unarmed; tarsi with arolia. Abdomen depressed, angles of dorsal segments acute. Supra-anal lamina of both sexes quadrate, incised, or entire. Both sexes winged, except in *Oniscosoma*.

Most species of the six small or moderately-sized genera of this family are extra-Australian, and widely distributed. The chief distinctions are the quadrate, incised or entire lamina of the

female, the produced angles of the hindmargins of segments, and the possession of wings by both sexes, excepting in one genus.

Whether Walker's species is rightly placed I cannot say, not having seen any specimens.

NAUPHOETA, *Burmeister.*

Handb. II., 508 ; *Br.*, Syst., 283, fig. 38.

"Antennæ setaceous, slightly shorter than the body. Pronotum truncate in front and behind, laterally much deflexed, hindangles obtuse. Abdomen scarcely dilated, nine dorsal segments. Supra-anal lamina of male quadrate, angles obtuse, middle impressed ; of female transverse, angles rounded, emarginate, and plicate in the middle. Cerci not exceeding the supra-anal lamina, smooth."

All the few other species, besides the following, occur in Africa and America.

NAUPHOETA DISCOIDALIS, *Walker* (Brit. Mus. Cat., 39).

"Black, elongate fusiform, flat, shining, thinly punctured. Head with pale-yellow ocelliform spots, a transverse impression near them, and a yellow band near the mouth. First joint of palpi testaceous. Antennæ very slightly setulose, sockets pale yellow. Pronotum yellow, sides rounded, margin and a discoidal spot black, latter slightly concave in front, with two notches behind approaching close to hindmargin. Meso- and meta-notum with hindmargins yellow. Elytra unsymmetrical in colour, left elytron piceous, with three unequal yellow spots, apex grey, hyaline, veins hyaline, costa and costal veins yellow, rounded towards the base ; right elytron pale-grey, hyaline, except the yellow marks and an intermediate piceous patch. Wings pale-grey, hyaline, costal streak and veins brownish. Legs tawny, stout. Abdomen piceous, with lateral triangular, testaceous spots, beneath tawny at the base. Supra-anal lamina testaceous, slightly notched.

	Both sexes.			
Length of body...	18 mm.
Length of elytra	12-18 "

Habitat.—New Guinea ; Waigou."

Stated to resemble *N. amoena*, Saussure, but to differ in the markings.

ZETOBORA, *Burmeister.*

Handb. II., 509 ; *Br.*, Syst., 288, fig. 39.

"Head depressed, covered by pronotum. Pronotum rhombic, rounded in front, subtruncate behind, lateral angles acute, fore-margin reflexed, disk cucullate, impressed punctate or granulate. Scutellum free. Elytra with very broad base, attenuated towards

the apex. Wings with median vein undivided. Abdomen with hindangles of dorsal segments much produced. Supra-anal lamina of female quadrate."

The nine species recorded by Brunner are all South American, also all those under section 1, 7 and 8, by Saussure and Walker. It is therefore quite probable that all those from Asia, Africa, and Australia, cited by the two last authors, do not belong to this genus, especially as "*Z. granicollis*," Sauss. (Section 6), has been suggested as synonymous with *Oniscosoma castanea*, Brunner, but this can only be decided by studying the types.

ZETOBORA ANTICA, Walker (Brit. Mus. Cat., 47).

"Blackish, elongate fusiform; testaceous beneath. Head black, shining, transversely impressed between the antennæ testaceous towards the mouth, also the palpi. Antennæ half the length of body. Pronotum with reflexed margins, minutely and darkly tuberculate, testaceous, semihyaline, angular, space behind not excavated, hindmargin hardly rounded, outline of blackish part angular, laterally notched. Elytra ferruginous, concolorous. Wings grey, lurid towards the costa. Legs tawny. Sub-anal (!) lamina entire. Cerci piceous or tawny.

Length of body (both sexes) ... 18-20 mm.

Length of elytra ... 24-26 "

Habitat.—Australia.

ONISCOSOMA, Brunner (Syst., 298).

Zetobora, Saussure; *Laxta*, Walker (young form).

Males winged, females wingless. Pronotum lenticular, exceeding the head very much, lateral angles of male rounded, of female acute, hindmargin of male rounded, of female subtruncate; in the middle (above the head) more or less cucullate. Elytra of male very much longer than the abdomen, wings as long as elytra, very broad anteriorly. Meso- and meta-notum of female with the hindangles very much produced. Legs short, rather thick. Abdomen of male ovate or suborbicular; of female ovate, dorsal marginal appendages much exceeding the ventral. Supra-anal lamina of male transverse, obtuse; of female quadrate, angles obtuse, subduplicate in the middle or emarginate. Cerci of male about three times as long as the lamina, with ten to twelve joints; of female dilated, shorter than the lamina. Subgenital lamina of male much produced, rounded; styles reflected.

The genus contains only two species, and is limited to Australia. It represents here the *Heterogamidæ*, which it resembles in aspect and habits; the latter being very abundant in Africa,

and extending to the Mediterranean coast, but almost absent from Australia. The descriptions are drawn up from numerous specimens.

ONISCOSOMA CASTANEA, *Brunner* (Syst., 300, fig. 36).

Diploptera silpha, Sauss., Rev. Zool., XVI., 325; *Zetobora granicollis*, Saussure, Melb. Orth., 33, fig. 21, 1862; *Lasta oniscoides*, Walker, Brit. Mus. Cat., 18.

Male.—Dull chestnut or coffee-brown. Head of male blackish-brown or black, shining; antennæ brown; labrum, palpi, and space at base of antennæ yellowish, also the legs and most of the underside. Pronotum of male rounded in front, widest in the middle and angular; foremargin broadly dull-yellowish, with a few dark granulations; sides gradually narrowed to the hind-angles; disk blackish in the middle, sides chestnut, densely granular, with two converging furrows in front, enclosed space raised over the head; quadrilateral area beyond widest behind at the hindmargin. Elytra large, rounded at the apex, veins much raised, irregularly reticulate radial vein black near the base. Wings slightly shorter, border deeply emarginate in the middle, smoky tinted. Scutellum triangular. Abdomen elongated, brownish testaceous, lateral margin narrow, angles obtuse, slightly produced. Supra-anal lamina short, transverse, rounded. Cerci much longer, slender, subterete, acute, hairy. Subgenital lamina subquadrate, shining, exceeding the supra-anal, *unsymmetrical*, the right side deeply emarginate, bordered pale, the left side not; hindmargin rounded, much reflexed; styles very slender, setaceous.

Female.—Broadly oval, outline regular, almost contiguous all round, reddish-chestnut, with numerous, much darker granulations, margins and indistinct longitudinal stripes pale; stigmatic spots, large, black. Head same as male. Pronotum nearly semicircular, hindmargin nearly straight, in the middle slightly and angularly produced, lateral angles obtuse. Lateral margin all round laminar, very broad, hindangles broadly and triangularly produced, very acute behind. Supra-anal lamina flat, very large, keeled, hindmargin rounded, entire. Cerci broad, acuminate, inserted in a narrow space between the produced hind-angles of preceding segment and the lamina, not exceeding either. Last ventral segment shorter, very broad, subtrigonal, sides sinuate, apex broadly rounded.

	Male.	Female.	Larvæ.
Length of body ...	22 mm.	24 -26 mm.	8-18 mm.
Length of elytra...	22-24 "	—	—
Length of pronotum	5- 6·3 "	6 - 7·3 "	2- 5 "
Width of pronotum	9-10 "	11·5-12·5 "	4-10 "

Habitat.—Vicinity of Adelaide, Murray Scrub, Sedan, Kangaroo Island; South Australia. Northern Territory of South Australia. S.A. Museum. Eastern Australia (*Brunner*).

The adults are remarkably uniform in coloration, but the larvæ are very different. They are more or less conspicuously marked by paler and darker longitudinal interrupted stripes, varying according to age or size, and gradually disappear when attaining the adult stage. Walker's description of his *Laxta oniscoides* agrees perfectly with that of a half-grown larva. The insects are numerous in woodlands, hiding under bark, logs, &c., and fly about at night, but do not live in houses. The larvæ appear chiefly in January and February, the adults from May to October, but the latter may be found occasionally all the year round.

ONISCOSOMA PALLIDA, *Brunner* (Syst., 301).

“Testaceous. Pronotum of male brown in the disk, minute brown granules scattered over the major part of the wings. Elytra ample, acuminute, translucent. Female wholly testaceous above, granules black, very much raised, scattered. Abdominal segments appendiculate. Supra-anal lamina emarginate in the middle.

	Male.	Female.
Length of body...	21 mm.	23 mm.
Length of elytra	26 “	—
Length of pronotum	6.2 “	8.2 “
Width of pronotum	9.5 “	15 “

Habitat.—New South Wales.”

The species differs in the pale colour of both sexes, the ulnar vein emitting bifurcate branches, &c.

PERISPHAERIDÆ, *Brunner* (Syst., 302).

“Head covered. Pronotum of male transversely lenticular; of female orbicular. Elytra of male perfect; of female absent, rudimentary, or perfect, corneous. Wings, when present, fan-like. Femora spineless; tarsi with arolia. Dorsal abdominal segments truncate behind, angles not produced, not exceeding ventral segments. Supra-anal lamina subquadrate, angles rounded; of female corneous, rounded, entire, not plicate. Cerci of male depressed, longer than lamina; of female short, triangular. Subgenital lamina of male large, with or without styles.

The principal distinctions from the preceding family are that the supra-anal lamina of the female is rounded, and the hind-angles of the abdominal segments are not produced. It is best represented in South Africa, but some species occur also in India, and others in South America.

PERISPHAERIA, *Serville*.

Burm., Handb. II., 483 ; *Br.*, Syst., 303, fig. 37.

“Males winged, females wingless. Head covered. Pronotum of male lenticular, foremargin semicircular, slightly raised over the head, flat, not gibbous, hindmargin rounded ; of female semi-orbicular, truncate behind, not incrassated, or dentate beneath. Elytra of male linear, costal area broad. Wings entire, median vein straight, or decurved at apex. Legs thick. Abdomen ovate, dorsal segments truncate behind, angles obtuse. Supra-anal lamina of male transverse ; of female rounded. Cerci of male lanceolate, long, depressed ; of female small, conical, inarticulate.

All the typical species (eight) described by Brunner belong to South Africa ; those by Walker are Australian.

PERISPHAERIA LAMINATA, *Walker* (Brit. Mus. Cat., 178).

“Black, elliptical, convex, dull, thickly tuberculate above, smooth and shining beneath. Head transversely impressed ; base of antennæ, labrum and palpi testaceous ; antennæ less than half the length of body. Pronotum semicircular, covering the head, testaceous and sub-hyaline in front (paler beneath), sides flat, hindmargin scarcely rounded in the middle. Meso- and meta-notum much dilated, hindangles elongate, acute. Legs and whole underside tawny. Abdomen with dorsal segments extending beyond the ventral, hindangles slightly elongate, acute. Supra-anal lamina entire. Cerci very short.

Length of body (female)... .. 22 mm.

Habitat.—South Australia ; West Australia.”

No specimen answering to the description has yet been seen. It cannot well be assumed that Walker overlooked the spineless femora, when placing the species here, else one might doubt the position.

PERISPHAERIA FALLAX, *Walker* (ibid, 172).

“Black, fusiform, shining, very convex, roughly punctured. Head smooth, extending a little beyond the pronotum, vertex and palpi dark-red. Antennæ longer than half the body, setose, dark-red towards the base. Pronotum parabolic, or short conical, sides rounded, straight behind. Meso- and meta-notum with hindangles hardly elongate. Legs deep-red, short, thick, tibiae with short spines. Cerci very short.

Length of body (female) 10 mm. (?)

Habitat.—West Australia.”

DEROCALYMMA, *Burmeister*.

Handb. II., 487 ; *Br.*, Syst., 315, fig. 41.

“Males winged, females wingless. Head wholly covered.

Antennæ extremely slender, half the length of the body. Pronotum with margin acute, incrassated beneath, except over the head. Styles of male absent. Chiefly South African and Indian species.

DEROCALYMMA CONTIGUA, *Saussure*.

Mem. Soc. Phys. de Genève, 1873.

Habitat.—New Guinea.

ECTATODERUS, *Saussure*.

Ann. Soc. Ent., France (6), II., 463.

ECTATODERUS NOUMEENSIS, *Saussure* (ibid).

Habitat.—New Caledonia.

This genus and species are quoted from the Zoological Record, vol. XIX., 1883.

HETEROGAMIDÆ (*Br.*, Syst., 350).

“Head globose, male with ocelli, female with ocelliform spots. Pronotum transverse, pilose, or ciliate. Elytra of male perfectly explicate, anal vein angulose, impressed; female wingless or perfectly winged; anal area not folding fan-like, wholly reflexed. Femora unarmed (or the first pair only with a few spinelets), tarsi very long, those of male with arolia, of female without such. Abdominal segments constricted or straight. Supra-anal lamina incised, or plicate and entire. Subgenital lamina of male with styles.

Only two genera of this family are recorded by Brunner. The typical one, with five species, occurs in Africa and the Mediterranean regions, and the other, *Homœogamia*, exclusively in Mexico, and is monotypic. No representatives were hitherto known from Australia. The remarkable species from the western coast of South Australia is so divergent in some characters, that it not only requires a new genus for its reception, but might become the type of a new family when sufficient material becomes available.

The following synopsis will indicate the chief distinctions:—

5.5. Supra-anal lamina of female quadrate, and excised, or broadly subtrigonal, rounded, and entire. HETEROGAMIDÆ.

6. Male winged, female wingless.

A. Pronotum rounded in front, truncate behind. Supra-anal lamina quadrate, incised. *Heterogamia*, *Burm.*

B. Pronotum sinuately rounded in front, produced and broadly rounded behind. Supra-anal lamina broadly subtrigonal, rounded, entire. *Ataxigamia*, *gen. nov.*

6.6. Both sexes winged. Pronotum truncate in front, rounded behind. Supra-anal lamina quadrate, incised.

HOMŒOGAMIA, *Burm.*

ATAXIGAMIA, *gen. nov.* (*Ataxia* = confusion).

Male winged, female (?). Head prominent. Pronotum ciliate meso- and meta-notum, also underside of the thorax, coxæ, and femora more or less densely covered with long, silky hair. Pronotum rounded in front, slightly sinuate on each side of the hood-like middle part, gradually narrowing rearward, produced behind, apex broadly rounded; sides much deflexed anteriorly, margin slightly rough, disk with coarse, shallow impressions. Elytra and wings large, perfectly folded; elytra acuminate; wings with anal area fan-like. Legs and tarsi long and slender, claws small, arolia minute. Abdomen very much depressed, segments scarcely constricted, angles not produced, obtuse or rounded. Supra-anal lamina subtrigonal, hindmargin rounded, entire, nearly flat. Cerci very much longer than lamina, subterete, 16-jointed, finely pilose, obtuse. Subgenital lamina exceeding the upper, broad, hindmargin emarginate.

In the "Archiv für Naturgeschichte" Gerstäcker also describes a genus (*Gynopeltis*), in which the fore femora alone are spined (Zool. Rec., VI., 461, 1864).

ATAXIGAMIA TATEI, *spec. nov.*

Pale brownish-ferruginous, underside of body and the legs pale ferruginous-testaceous. Head pale, face hairy; antennæ brown, basal joints pale. Pronotum pale in front, dark behind. Elytra reddish-brown along the costa and at the base, paler beyond, veins with narrow deep-brown margins, veinlets whitish. Wings before the middle and all longitudinal veins smoky-brown, pale beyond, transverse veinlets whitish. Anterior femora with four spinelets, middle and hind femora unarmed. Styles inserted near posterior margin of subgenital lamina, very short, slender.

				Male.
Length of body	...	...	...	27 mm.
Length of elytra	...	...	...	35 "
Length of pronotum	...	...	...	8 "
Width of pronotum	...	...	...	11.5 "

Habitat.—Fowler's Bay, western coast of South Australia (legit Prof. R. Tate). S.A. Museum.

The principal aberrant characters consist in the fore femora alone bearing spines, the anal area of the elytra being narrow, and longer than in any other species, the anal area of the wings folding flabellately, and the supra-anal lamina being entire, rather long, and nearly flat.

B. Claws without arolia.

PANESTHIDÆ (*Br.*, Syst., 384).

Head large, very broad, antennæ shorter than body, rather

thick. Pronotum semiorbicular, not quite covering the head, truncate in front, or emarginate in the middle; disk more or less excavated. Elytra perfect, corneous, shining, constricted in the middle, or abbreviated, or none. Legs stout, femora unarmed, or the anterior ones only with a few teeth in some species; claws large, arolia none. Abdomen thick, hindangles of dorsal segments obtuse. Supra-anal lamina broad, rounded. Subgenital lamina of male rounded or transverse, very narrow.

The family comprises four genera, each with only a few species, two being wholly or chiefly American, the others Indian and Australian; and is the last in Brunner's system of the Blattariæ.

PANESTHIA, *Serville*.

Ann. Sc. Nat. Zool., XXII., 1831; *Br.*, Syst. 390, fig. 58.

"Black, very shining. Head large; antennæ thick, scarcely longer than the pronotum. Pronotum transverse, emarginate and raised over the head, margins broad, disk more or less deeply excavated, and tuberculate. Elytra with costa more or less suddenly deflexed, constricted beyond the costal area leaving the sides of the abdomen and the scutellum visible; veins indistinct except in the radial and anal areas. Coxæ and femora very thick, tibiæ with long spines. Abdomen very convex, coarsely punctured dorsally. Supra-anal lamina very broad. Cerci triangular, very short. Subgenital lamina of male small, transverse, without styles.

Of the species recorded by Brunner one is Australian, the others are from the Malay Archipelago, two of them, however, have since been proved to extend to the Northern Territory of South Australia, by specimens in the collection of the S.A. Museum.

PANESTHIA MORIO, *Burmeister*.

Hardb., II., 513; *Br.*, Syst., 392.

Body deep-black. Head black; *ocelli*, a band across the face, margin of *labrum*, and *palpi* (partly) yellowish; antennæ moniliform, reddish. Pronotum with frontal incision acute, margins deflexed, bi-tuberculate. Elytra deep-brown, veins distinct, pale, parallel towards apex. Legs piceous to brown; fore femora ciliate, unarmed. Abdomen with last dorsal segment laterally dentate. Supra-anal lamina crowdedly toothed.

Female.	Brunner.	S.A. Mus.
Length of body... .	33-52 mm.	36 mm.
Length of elytra ...	37 " (?)	39 "
Length of pronotum ...	8-12 "	12 "
Width of pronotum ...	12.5-18"	12 "

Habitat.—Java, Ceylon, Amboina (*Brunner*); Northern

Territory of South Australia (*S. A. Museum*); New South Wales, Lord Howe Island (*Walker*).

The specimen from which the above description was drawn up was presented by the Hon. S. Magarey in 1886, and differs only in the italicised particulars from Brunner's description.

PANESTHIA JAVANICA, *Serville* (loc. cit.).

Br., Syst., 393, fig. 58; *P. affinis*, *Burm.*; *P. æthiops*, *Stål*; *P. quadrimaculata*, *Walk.* (larva).

"Black, very shining. Pronotum of male deeply and broadly incised in front with horn-like angles, middle dentate; incision of female triangular, sides and middle dentate. Elytra longer than the body, very shining, veins indistinct. Abdomen with last segment entire, hindangles produced, tooth-like. Supra-anal lamina denticulate. Larva with four spots.

	Male.	Female.
Length of body ...	31-45 mm.	42 mm.
Length of elytra ...	24-37 "	33 "
Length of pronotum ...	6-10 "	9 "
Width of pronotum ...	10-16 "	14 "

Habitat.—Java, Philippine Islands, Cambodia, Birma (*Brunner*); India, Australia (*Walker*, *Brit. Mus. Cat.*, 20)."

PANESTHIA TRANSVERSA, *Burm.*

Handb. II., 513; *Br.*, Syst., 395; *P. plagiata*, *Walker* (*Brit. Mus. Cat.*, 21).

Black, shining. Pronotum with frontal incision of male deep, sides and middle horn-like elevated; of female much less deep, lateral and medial tubercles tooth-like, disk deeply excavated anteriorly, a curved transverse ridge behind the depression. Elytra with the costal area suddenly abbreviated before the middle, much narrowed beyond, margin dusky yellowish; a broad, interrupted, oblique yellow band before the middle.

	Male.	Female.
Length of body ...	25 mm.	30 mm.
Length of elytra ...	22 "	23 "
Length of pronotum ...	5.5 "	6 "
Width of pronotum ...	9.5 "	10 "

Habitat.—Java (*Burm.*); Ceylon (*Walker*); Northern Territory of South Australia.

The specimen of a male from which the description and measurements have been supplemented, was captured by my brother, Mr. J. P. Tepper, near Port Darwin, about 1874.

PANESTHIA AUSTRALIS, *Brunner* (Syst., 396).

Deep black; part of the underside brown. Pronotum of male

emarginate in front, margin incrassated, reflexed, disk with trifoliolate excavation and four tubercles in the angles; of female subemarginate, margin not incrassated, or reflexed, disk almost flat, impression triangular, small. Supra-anal lamina with hind-margin entire. Elytra and wings of male much abbreviated, scarcely attaining the hindmargin of the metanotum, veins distinct; of female lobiform, almost obsolete.

	Male.	Female (<i>Br.</i>)	Male.	Fm. (<i>mih.</i>)
Length of body ...	31 mm.	28 mm.	29 mm.	28 mm.
Length of elytra ...	?	?	8 "	7 "
Length of pronotum	7 "	6.2 "	6.5 "	6 "
Width of pronotum	11 "	9 "	11 "	9 "

Habitat.—Sydney, New South Wales; Moreton Bay, Queensland (*Brunner*); Ardrossan, Yorke's Pen., South Australia (*Cadd*); Kewell, N.W. Victoria (*Jas. Hill*).

I observed and collected this species already in 1898-80, usually at the foot of perpendicular faces of cliffs along the seashore, but beyond the direct action of the waves, either embedded in the loose abraded detritus or concealed under clods of earth and in fissures. The insects were, however, by no means abundant. The female specimen from Kewell (200 miles inland) appears to be a nymph, the elytra and wings being lobiform and not free, of nearly equal length. The former extend barely to the hindmargin of the metanotum, the latter to that of the second abdominal segment, both with the veins quite distinct.

Respecting the elytra and wings of the adults, *Brunner* remarks that they were mutilated in his specimens, but of the ordinary type. This appears not to be the case either in regard to the mutilation or that they ever have perfect organs of flight. The adult male specimen in the collection of the S.A. Museum presents also a *mutilated* appearance, but when closely examined with a strong lense it is seen that the edges of elytra and wings are quite smooth, and rounded, notwithstanding their broken appearance, and it is my opinion that this is their normal form.

PANESTHIA CRIBRATA, *Saussure* (Rev. et Mag. Zool., 1864, p. 31), Australia.

PANESTHIA KRAUSSIANA, *Saussure* (Mem. Soc. Phys. de Genève, 1873).

Habitat.—Melbourne, Victoria.

PANESTHIA LAEVICOLLIS, *Saussure* (*ibid.*).

Habitat.—Australia.